BenQ FP931

LCD Color Monitor

19.0" (48.26 cm) LCD Panel Size

User's Manual

Welcome

i Copyright

ii Disclaimer

BenQ Corporation makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Further, BenQ Corporation reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of BenQ Corporation to notify any person of such revision or changes.

Please follow these safety instructions for best performance, and long life for your monitor

iii Power Safety

- The AC plug isolates this equipment from the AC supply.
- The power supply cord serves as a power disconnect device for pluggable equipment. The socket outlet should be installed near the equipment and be easily accessible.
- This product should be operated from the type of power indicated on the marked label. If you are not sure of the type of power available, consult your dealer or local power company.

iv Care And Cleaning

- Cleaning. Always unplug your monitor from the wall outlet before cleaning. Clean the LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any liquid, aerosol or glass cleaners.
- Slots and openings on the back or top of the cabinet are for ventilation. They must not be blocked or covered. Your monitor should never be placed near or over a radiator or heat source, or in a built-in installation unless proper ventilation is provided.
- Never push objects or spill liquid of any kind into this product.

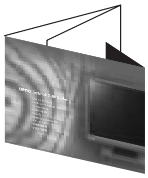
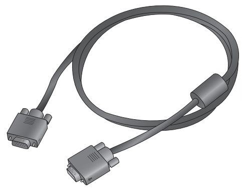
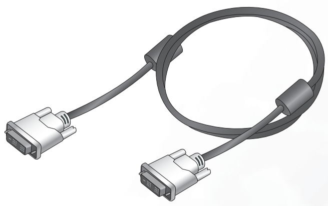
v Servicing

- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltages or other risks. If any of the above mentioned misuse or other accident such as dropping or mishandling occurs, contact qualified service personnel for servicing.

Table of contents

1 Getting started

When unpacking please check you have the following items. If they are missing or are damaged, please immediately contact the dealer at which you purchased the goods.

BenQ LCD Monitor	
Quick Start Guide	
CD-ROM Disk	
Power cord	
Signal cable: D-Sub	
Signal cable: DVI-D (optional)	

2 Getting to know your Monitor

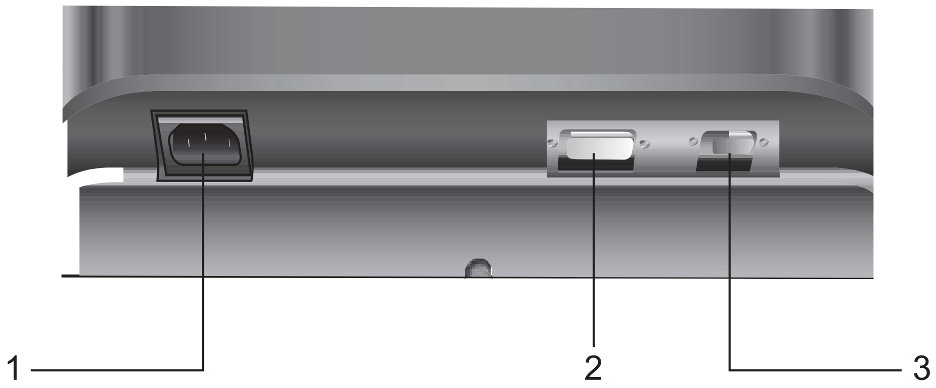
Front View



Back View (1)



Back View (2): Locations of plugs & sockets



1. Power AC input jack	2. DVI-D connector (optional)
3. D-Sub connector	

3 How to install your monitor hardware

Make sure that the computer and monitor's power are both turned off. Please follow these seven steps to install your LCD monitor.

1. Connect D-Sub cable to the LCD monitor.



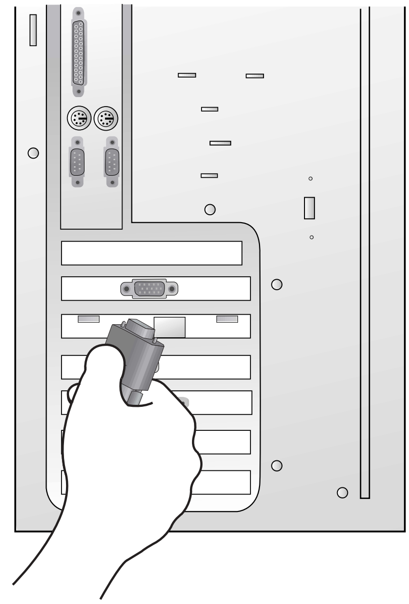
2. Connect DVI-D cable to your LCD monitor. (optional)



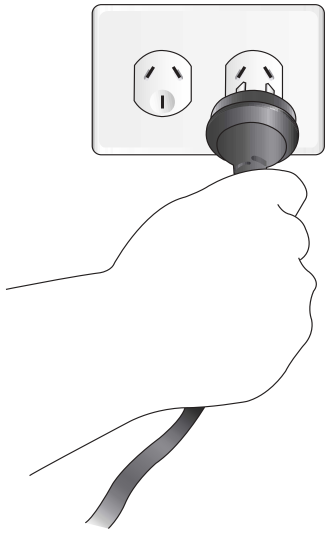
3. Connect the power cord to your LCD monitor.



4. Connect the other end of signal cable to the signal connector of your computer.



5. Connect power cord to an AC power socket.



❹ How to install your monitor's software

You need to set up the correct monitor driver to suit your operating system.

To set up Windows 95, start on this page.

Windows 98, turn to page 15.

Windows 2000, turn to page 20.

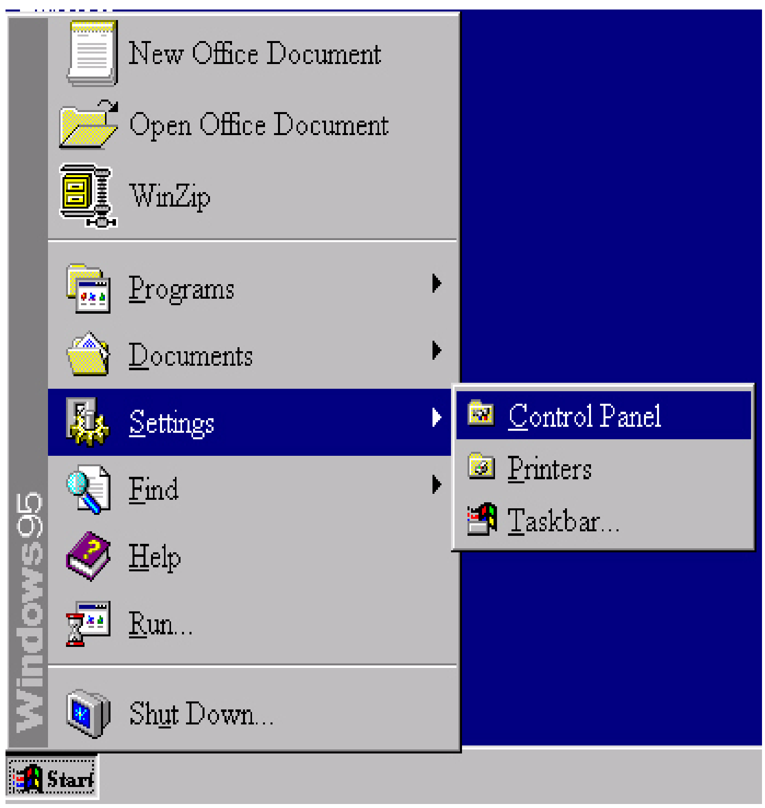
Windows ME turn to page 27.

Windows XP turn to page 33.

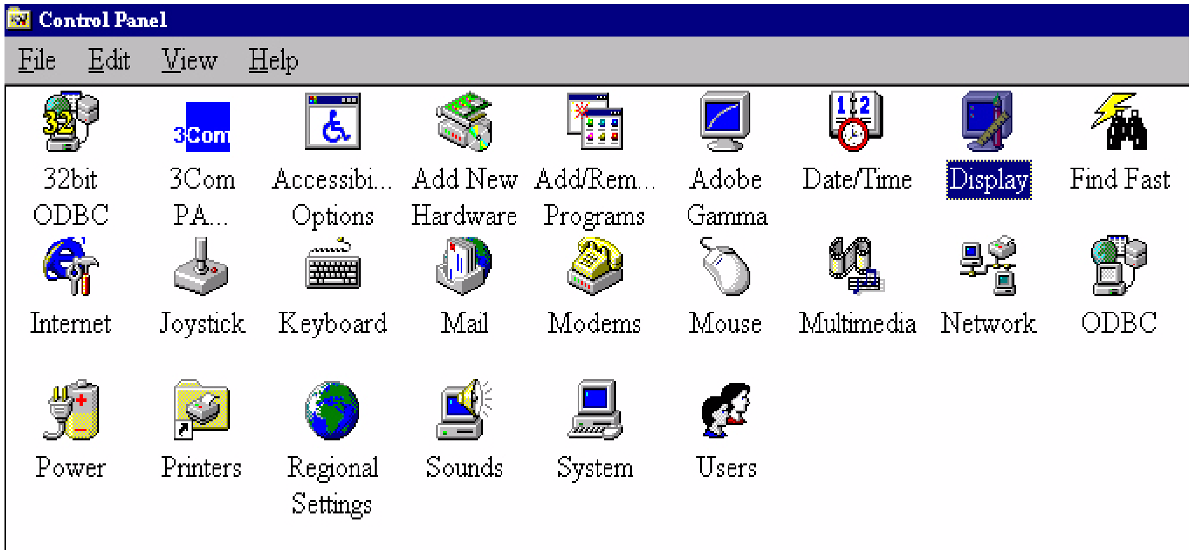
Windows 95. The first time you start Windows with a new monitor, the system will detect it and automatically install the driver for plug and play displays. To install the current driver from CD, proceed as follows:

1. Insert "**BenQ LCD Monitor**" CD-ROM into your CD-ROM Driver.

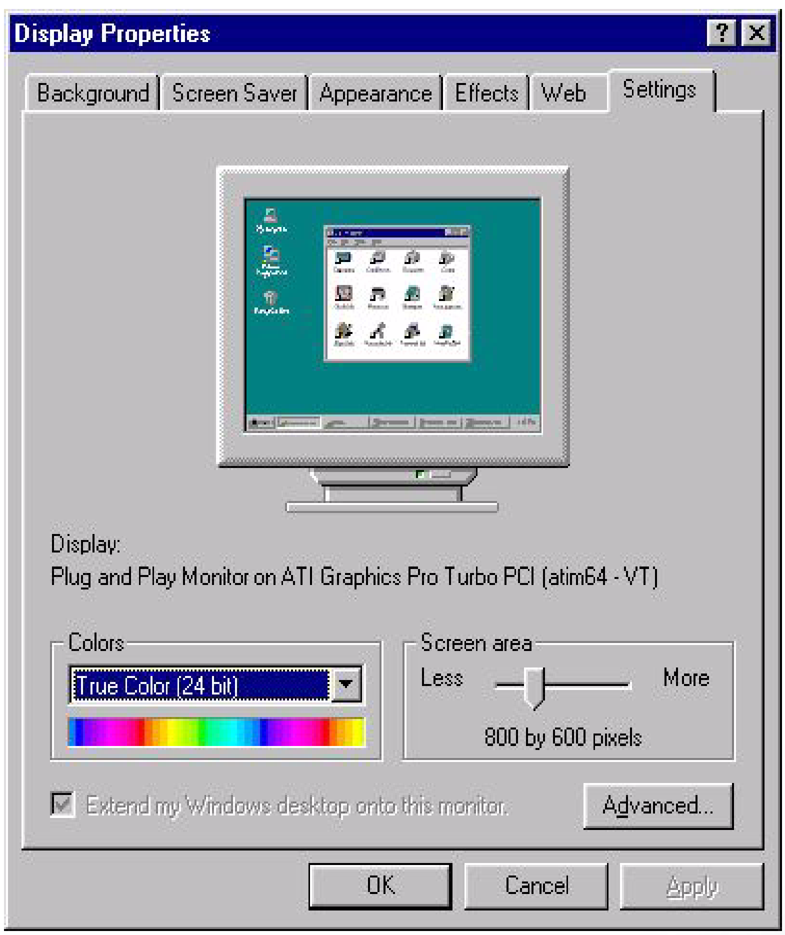
2. Click "**Start**" then "**Settings**".



3. Double click the “**Display**” icon in the Control Panel.



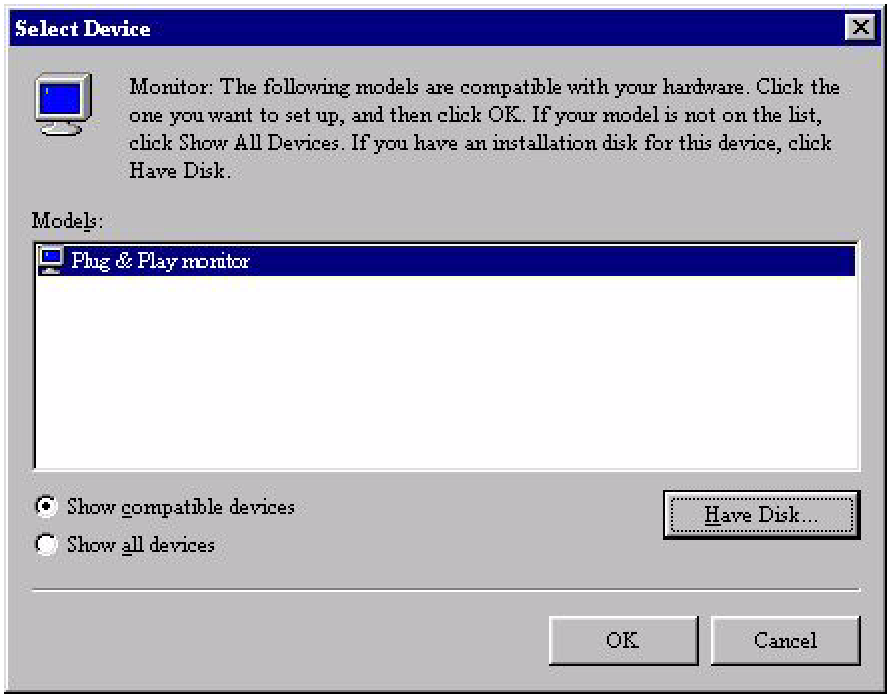
4. From the “**Display properties**” window, select the “**Settings**” tab. Click the “**Advanced...**” button in the bottom right corner.

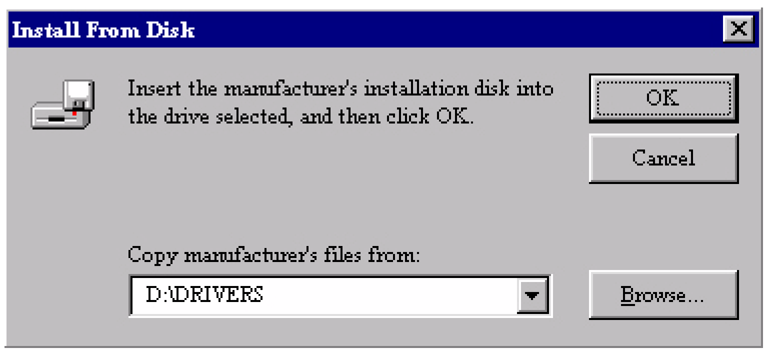


5. Select the "**Monitor**" tab. Click the "**Change**" button in the top right corner.



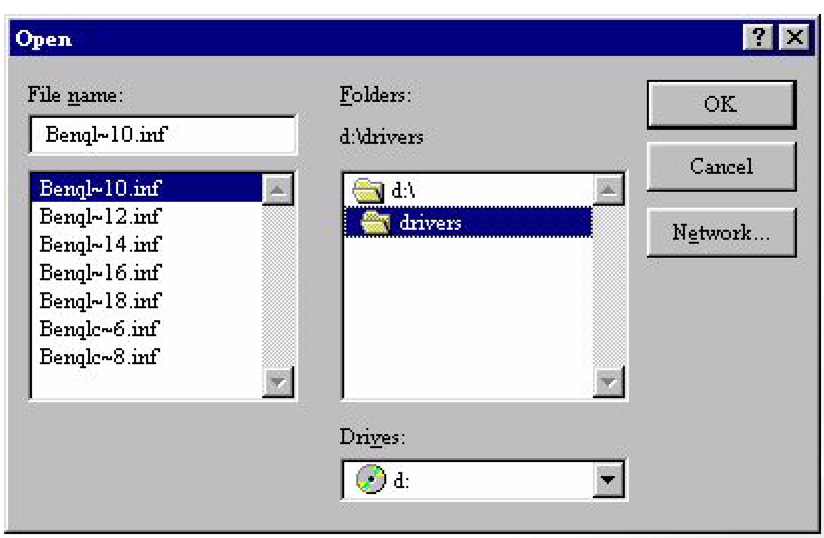
6. Now click the “**Have Disk**” button in the bottom right corner. Another window appears. Select the “**Browse**” button.



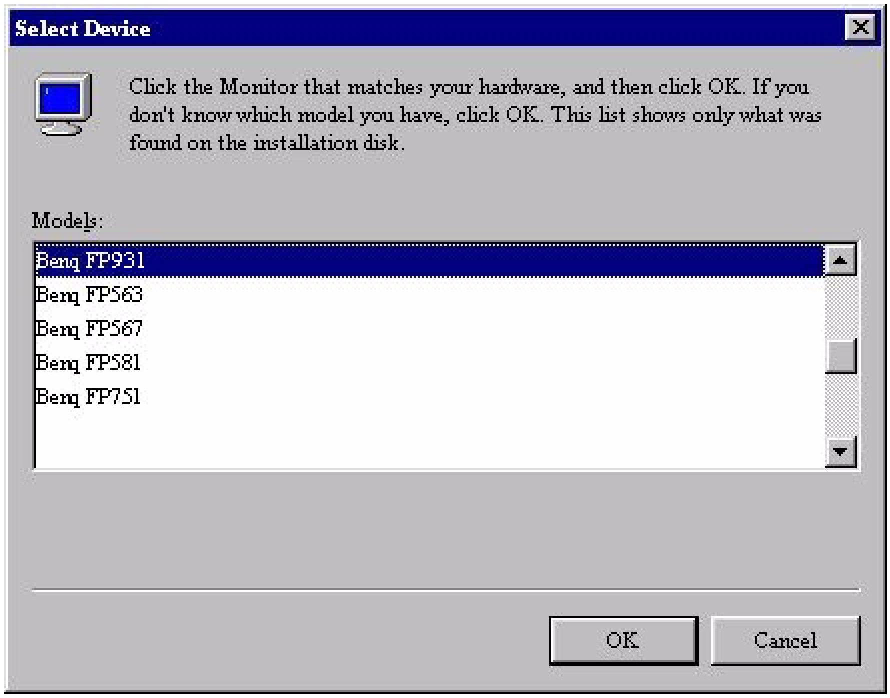


7. Insert the supplied CD into your computer. Select the CD-drive from the drop-down menu.

8. In the field above the drive selection, change to the “**Drivers**” folder. The current driver files are located there. Press “**OK**” and the window closes.



9. By pressing "**OK**" again in the next window you will be given a list of compatible devices. Select "**FP931**" from the list and press "**OK**" again.



10. Now you are back to "**Advanced Display Properties**". Close this window by clicking "**OK**" and confirm the following messages with "**Yes**". Click "**OK**" and "**Yes**" again. The installation is now completed. You can close "**Display Properties**".

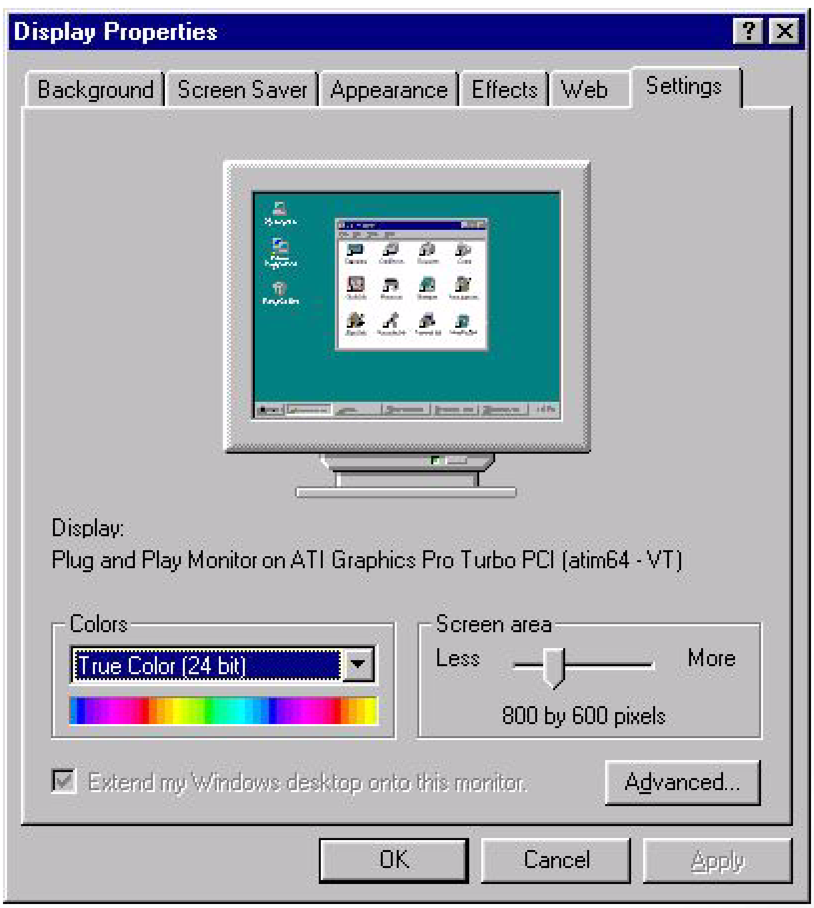


Windows 98. To manually install or update the driver, perform the following steps:

1. Open the control panel and double-click "**Display**" icon.



2. From the "**Display Properties**" window, select the "**Settings**" tab. Click the "**Advanced...**" button in the bottom right corner.



3. Select the “**Monitor**” tab. Click the “**Change**” button in the top right corner.



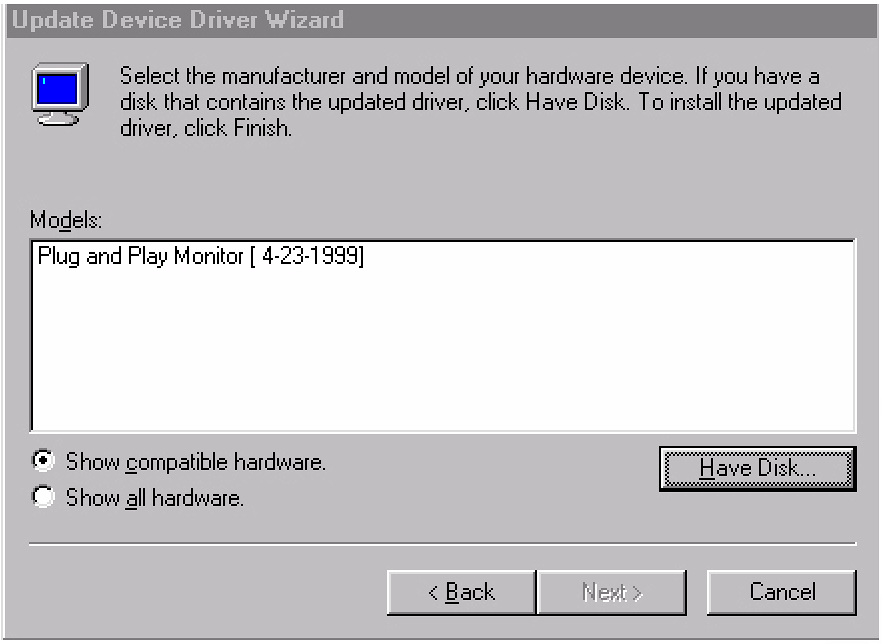
4. The “**Update Device Driver Wizard**” opens. Confirm by clicking “**Next**”.



5. Select "**Display a list of all drivers in a specific location, so you can select the driver you want.**" and press "**Next**".

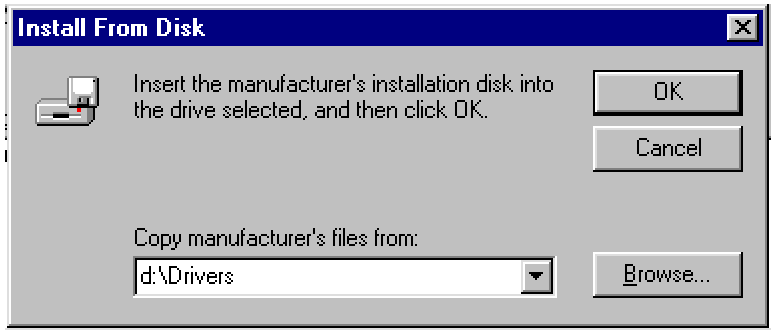


6. Now click the "**Have Disk**" button in the bottom right corner. Another window appears. Select the "**Browse**" button.

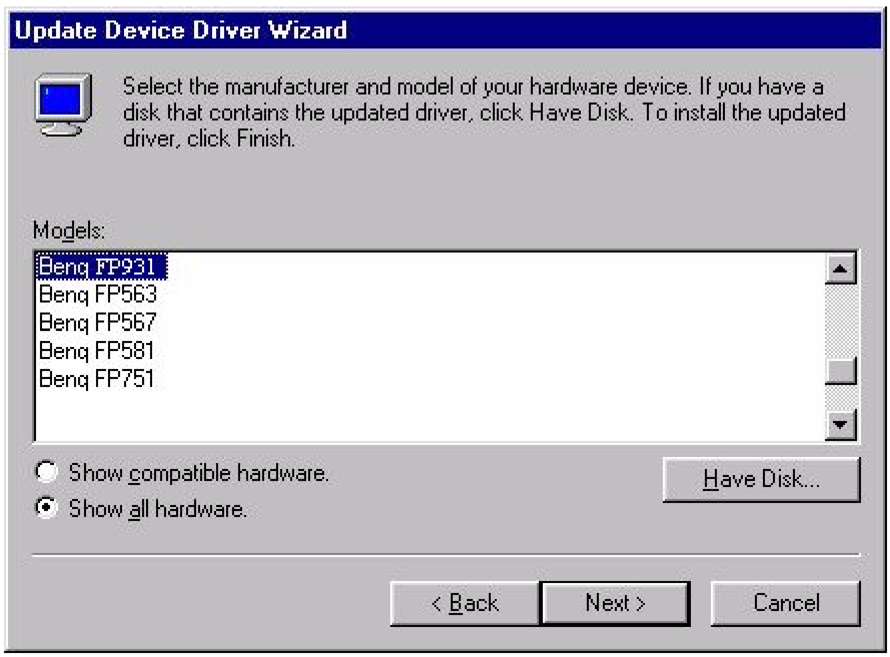




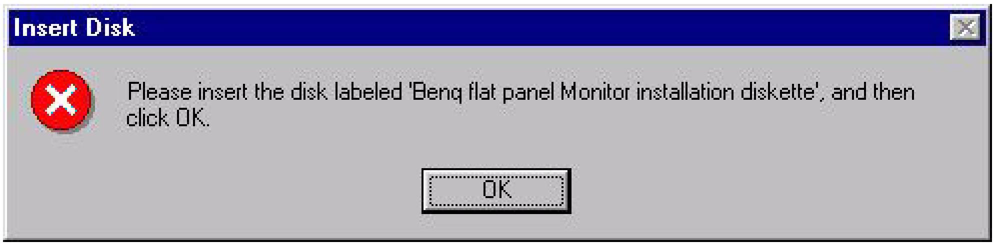
7. Insert the supplied CD into your computer. Select the CD-drive from the drop-down menu.

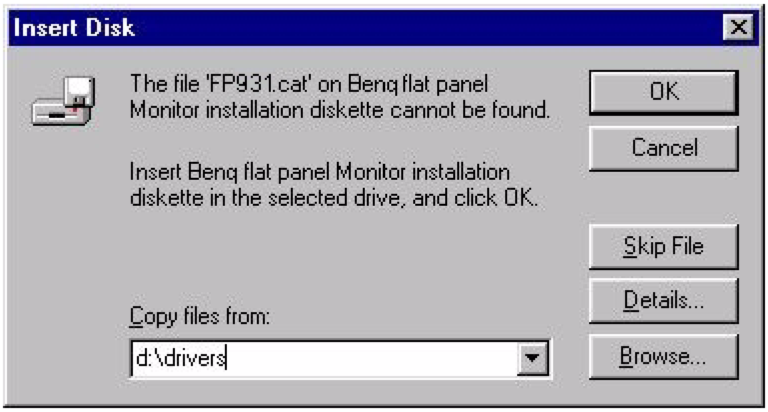


8. By pressing “**OK**” again in the next window you will be given a list of compatible devices. Select “**FP931**” from the list and press “**Next**” again.



9. An "**Insert Disk**" dialogue box appears. Click "**OK**", and then click "**Skip File**".



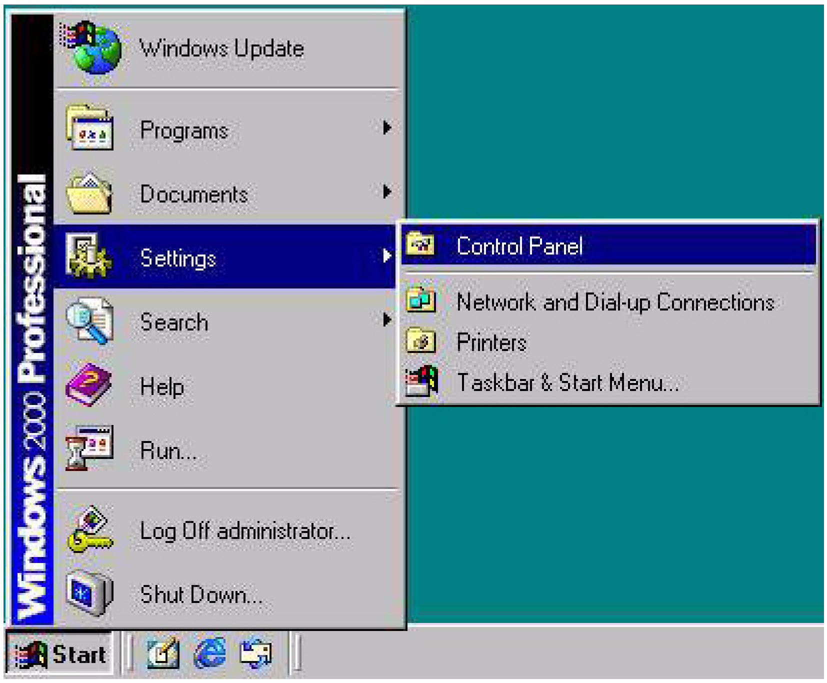


10. Close "**Update Device Driver Wizard**" by clicking "**Finish**" to complete the installation.

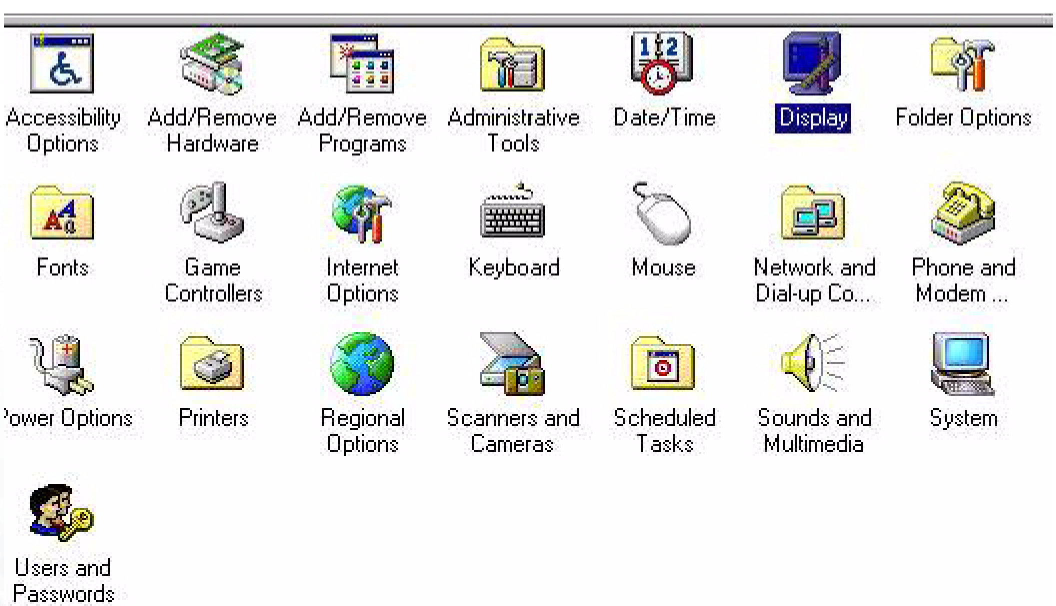


Windows 2000. The first time you start Windows with a new monitor, the system will detect it and automatically start the "**Add New Hardware Wizard**". Carry out the instructions beginning at step 4.

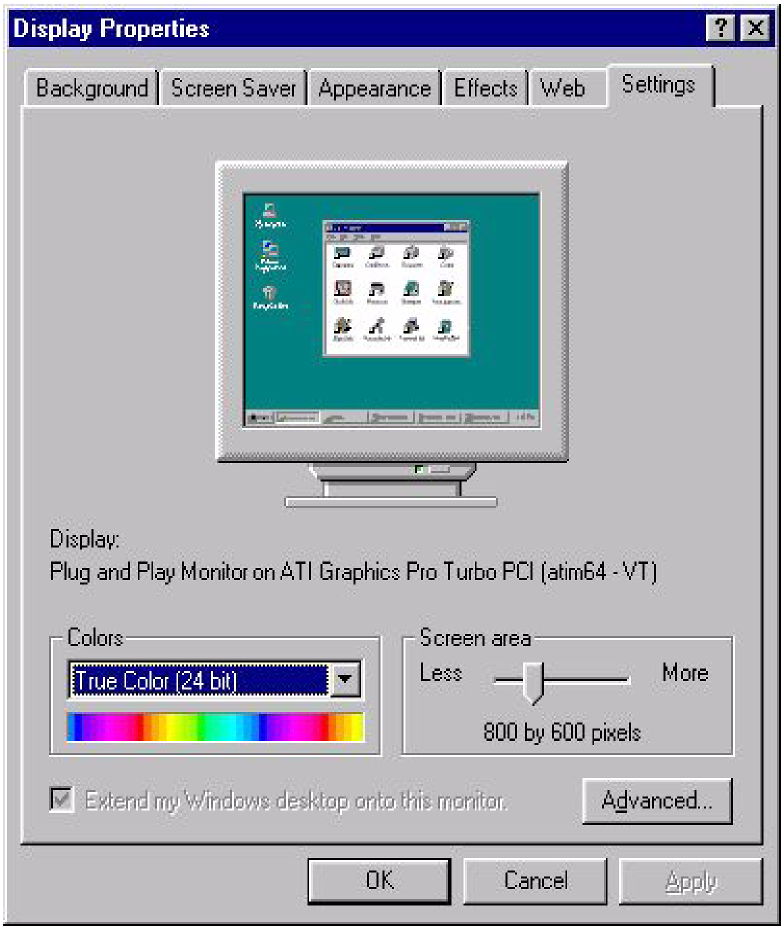
1. Insert "**BenQ LCD Monitor**" CD-ROM into your CD-ROM Driver.
2. Click "**Start**" then "**Settings**".



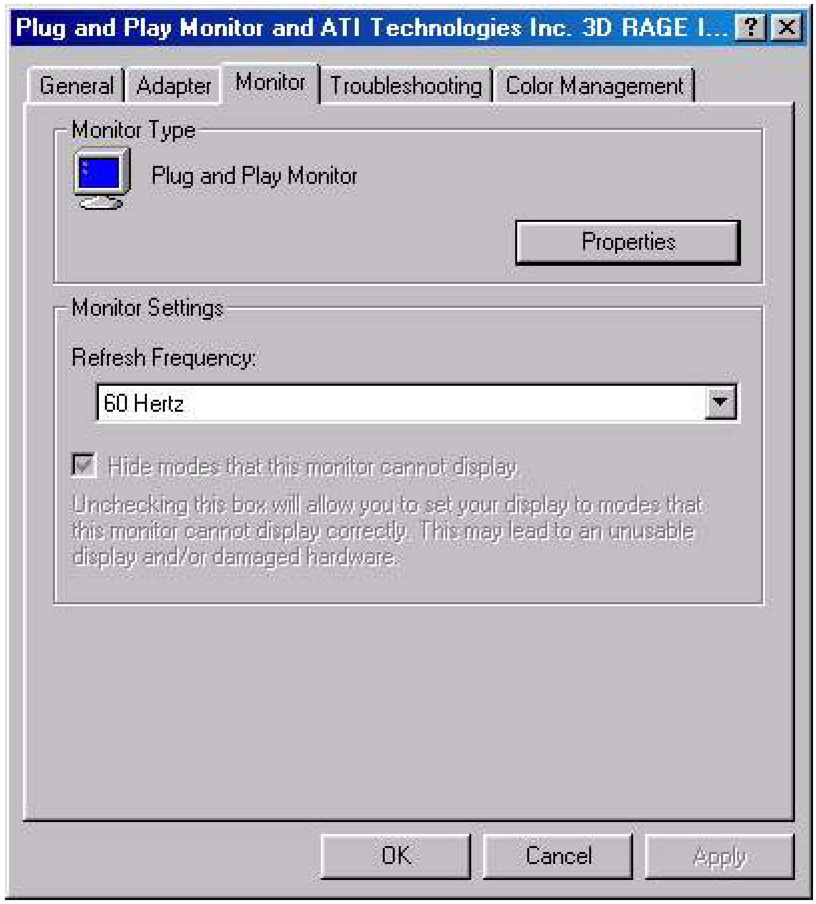
3. Open the Control Panel and double click on the "**Display**" icon.



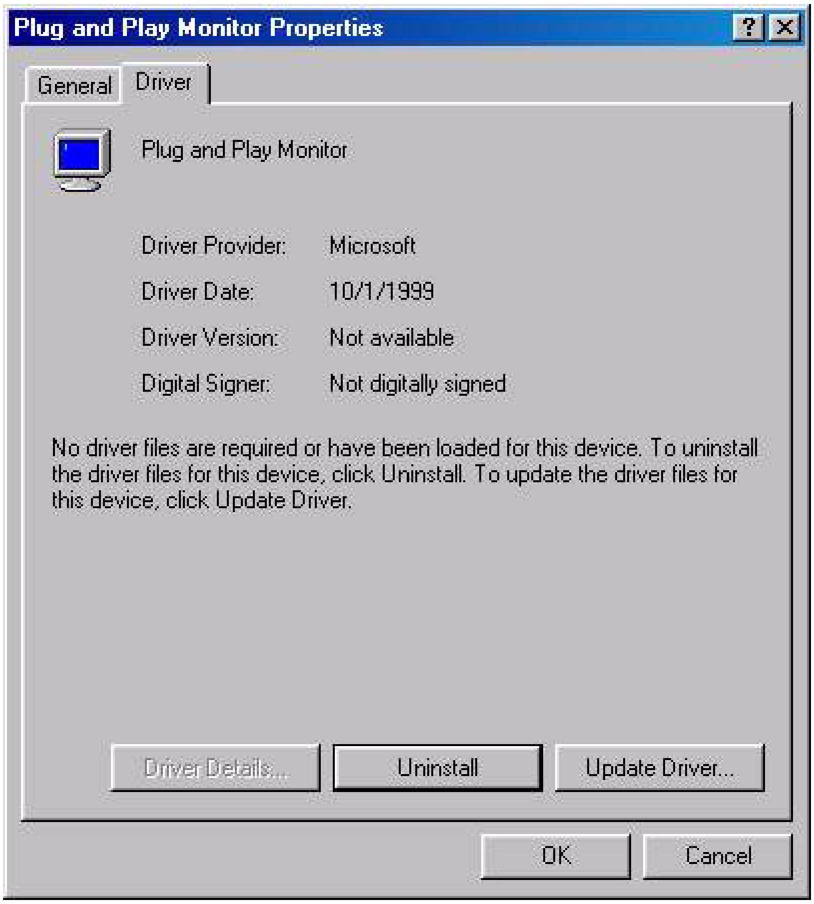
4. From the “**Display Properties**” window, select the “**Settings**” tab. Click the “**Advanced Properties**” button in the bottom right corner.



5. Select "**Monitor**" then click "**Properties**".



6. Select "**Driver**" tab then click "**Update Driver**".



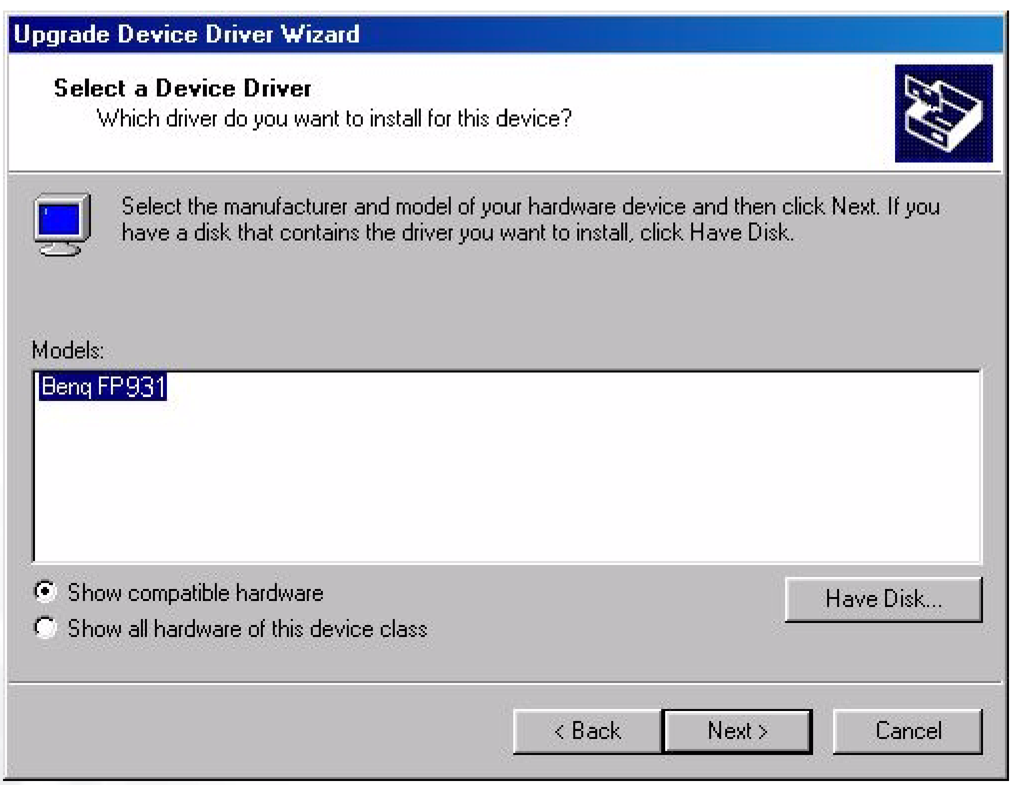
7. The "**Upgrade Device Driver Wizard**" will pop up. Then click "**Next**".

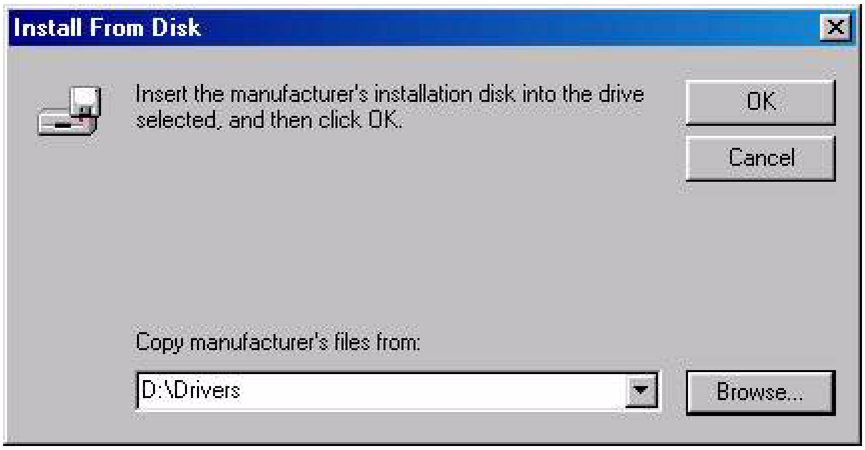


8. Select “**Display a list of the known drivers for this device so that I can choose a specific driver**” then click “**Next**”.

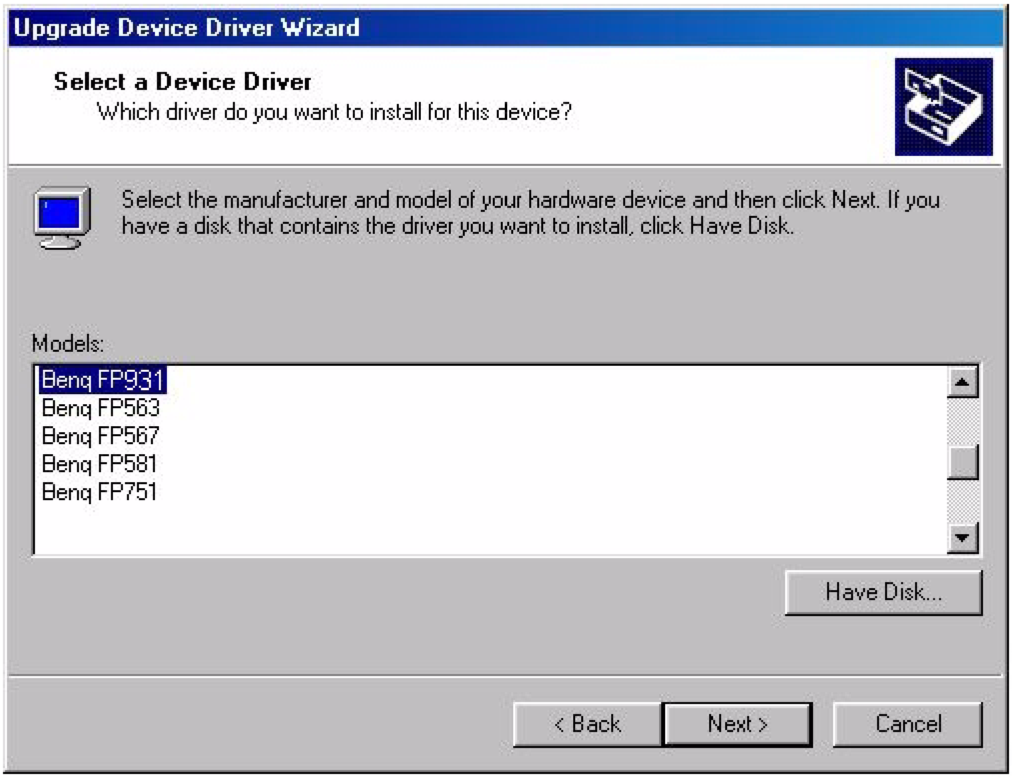


9. In the next window, click “**Have Disk**”, then “**Install From Disk**” window will pop up. Click “**Browse**”, the “**Located File**” will pop up.

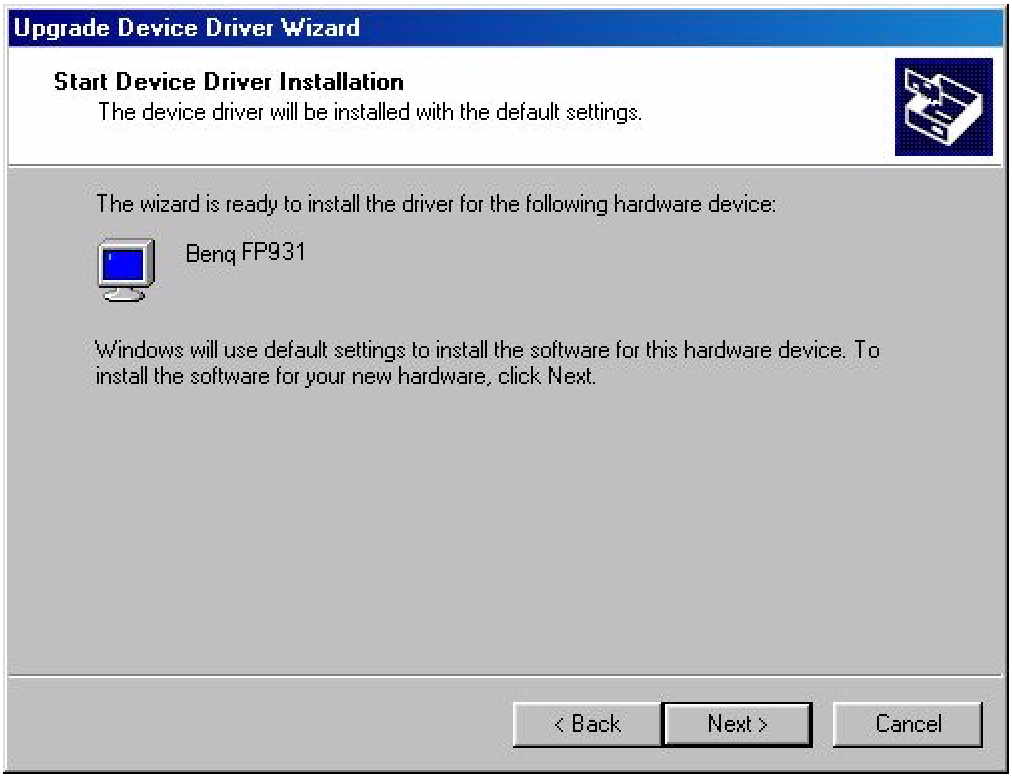




10. Scroll down and select your CD ROM Driver, then click “**Next**” .



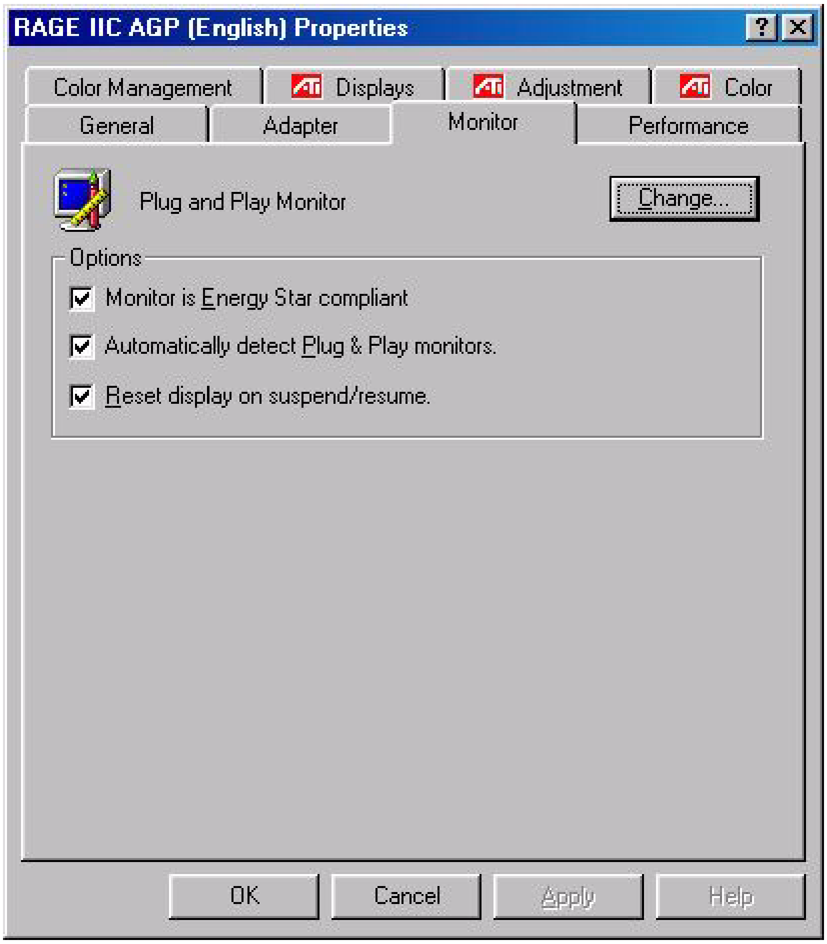
11. In the list of folders within the CD-ROM, select "**Drivers**" folder then click "**Open**" twice, then click "**OK**". Select your LCD Mode (FP931) from the list in the next window then click "**Next**" twice.



12. The new drivers are now installed on your computer.

Windows ME. To manually install or update the driver, perform the following steps:

1. Click "Start", "**Settings**", "**Control Panel**" and then double-click "**Display**".
2. In the Display Properties window, click the "**Settings**" tab and click "**Advanced...**".
3. Click the "**Monitor**" tab and then click "**Change**".



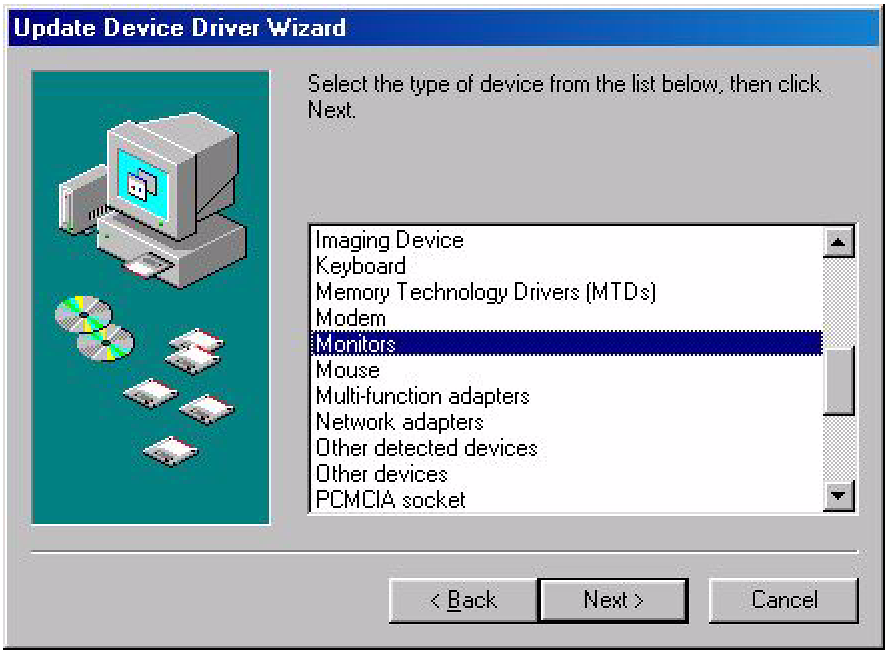
4. “**Update Device Driver Wizard**” dialogue box appears. Choose “**Specify the location of the driver (Advanced)**” and then click “**Next**”.



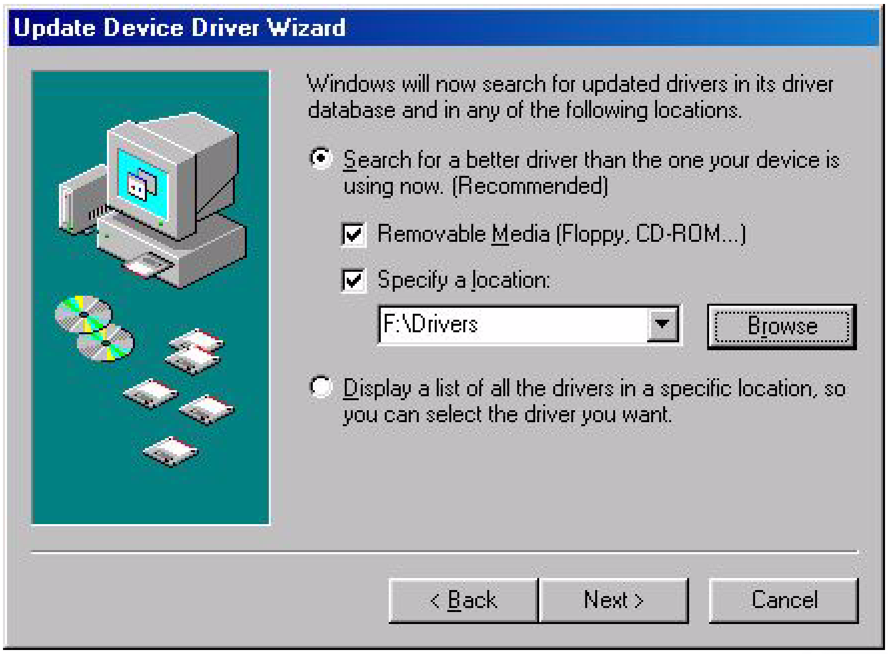
5. Choose “**Display a list of all the drivers in a specific location, so you can select the driver you want**” and click “**Next**”.



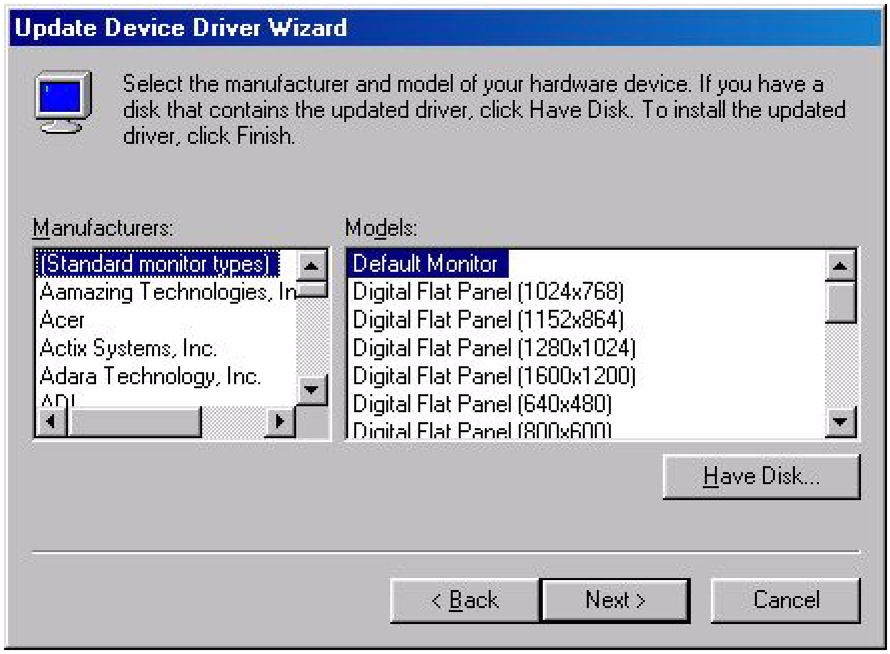
6. Choose "**Monitor**" from the list and then click "**Next**".



7. Choose "**Display a list of all the drivers in a specific location, so you can select the driver you want.**".

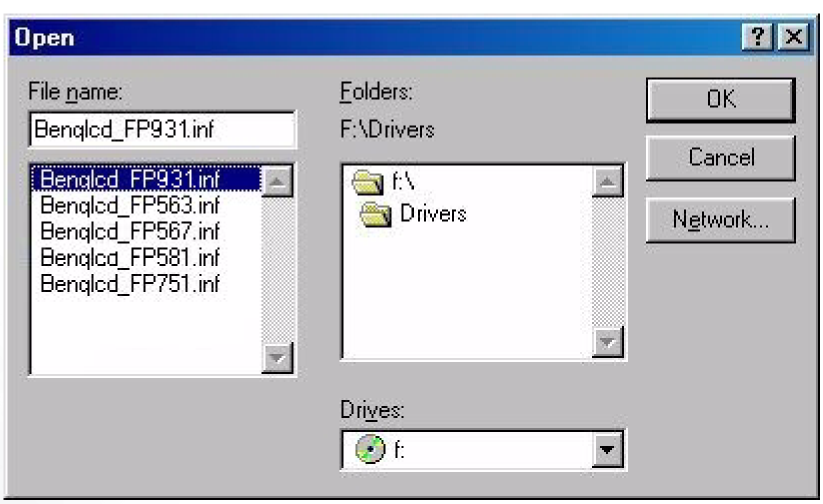


8. Click “**Have disk**” and then click “**Browse...**”.

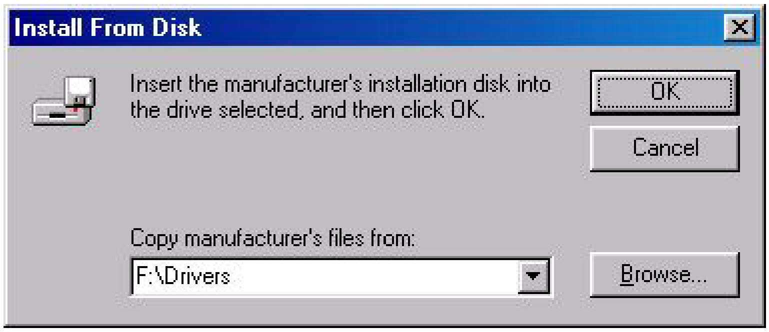


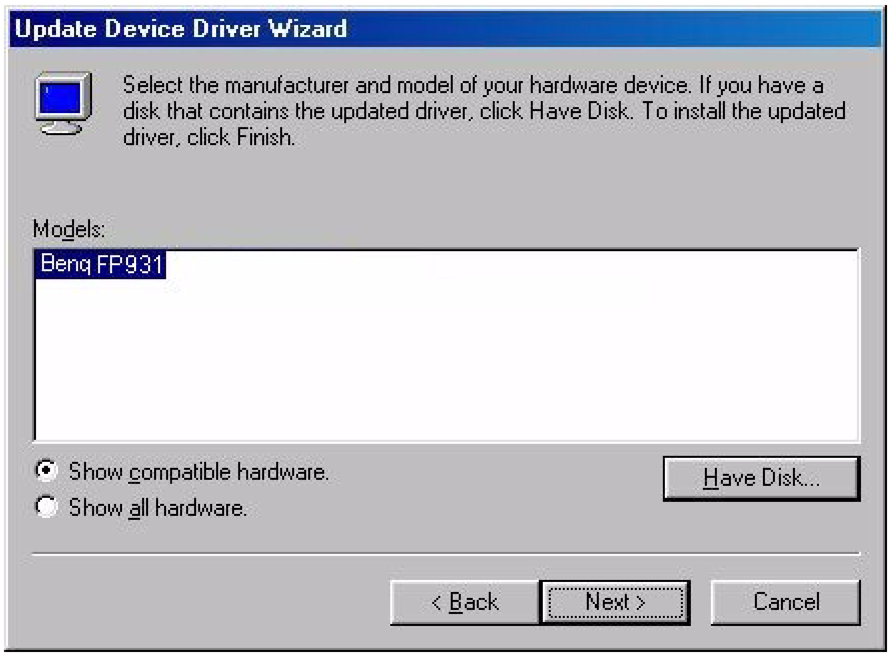
9. Insert “**BenQ LCD Monitor’s CD**” into your CD-ROM and type d:\ (change the driver letter to match your CD-ROM driver if it is not drive D). Enter “**Drivers**” folder to select the model from the list left. Click “**OK**”.





10. Click “**OK**” on the “**Install From Disk**” window. The dialogue box “**Update Device Driver Wizard**” appears. Choose the model from the list, then click “**Next**”.





11. Click “**Next**”.

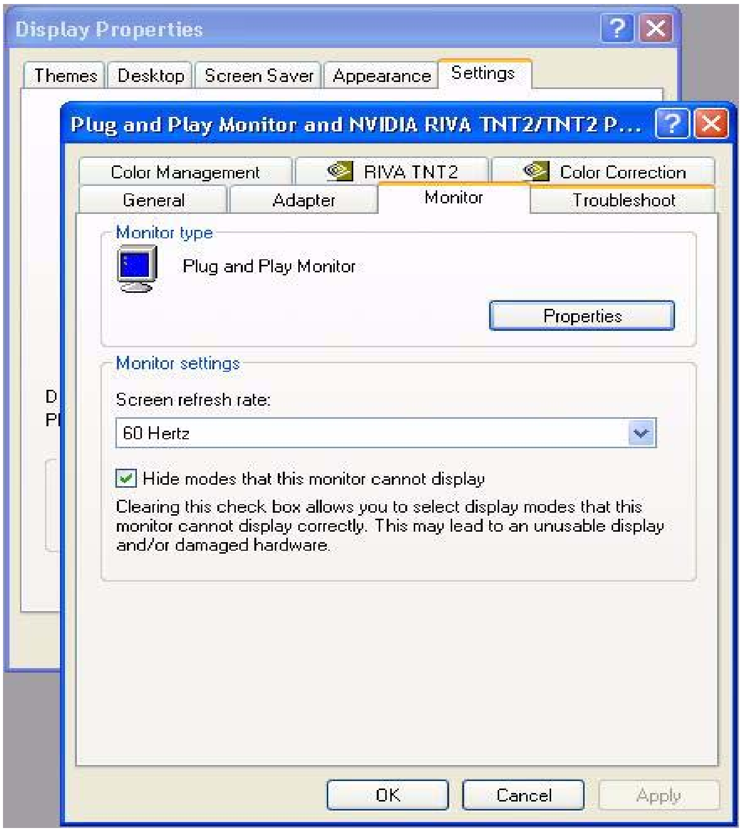


12. Click "**Finish**" to complete the installation.

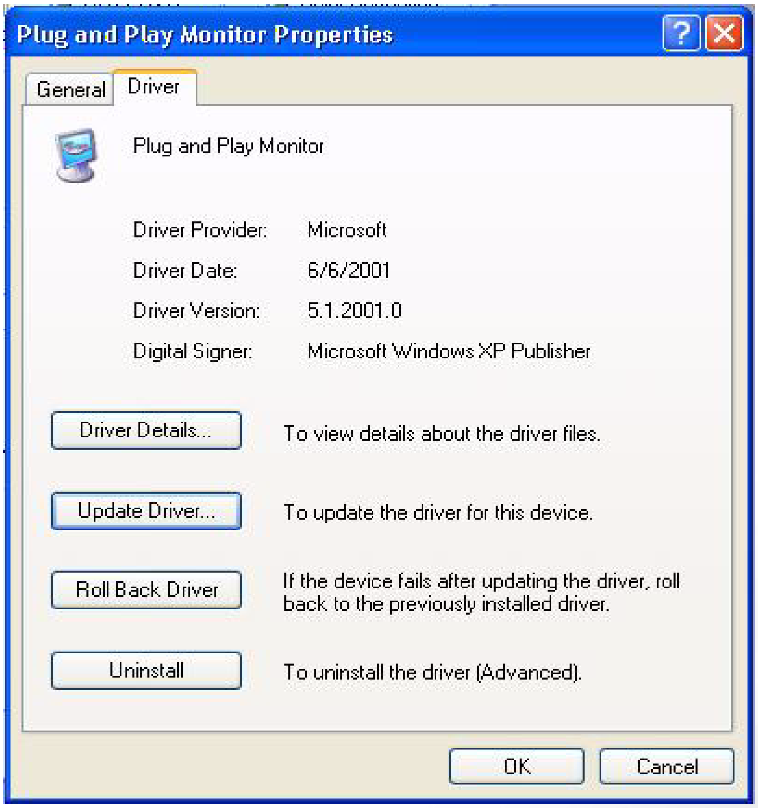


Windows XP.

1. Right click mouse on the desktop and choose "**Properties**". Select "**Settings**" tab and click the "**Advanced**" button. A small window will pop up. Select the "**Monitor**" tab in the new window and then click "**Properties**".



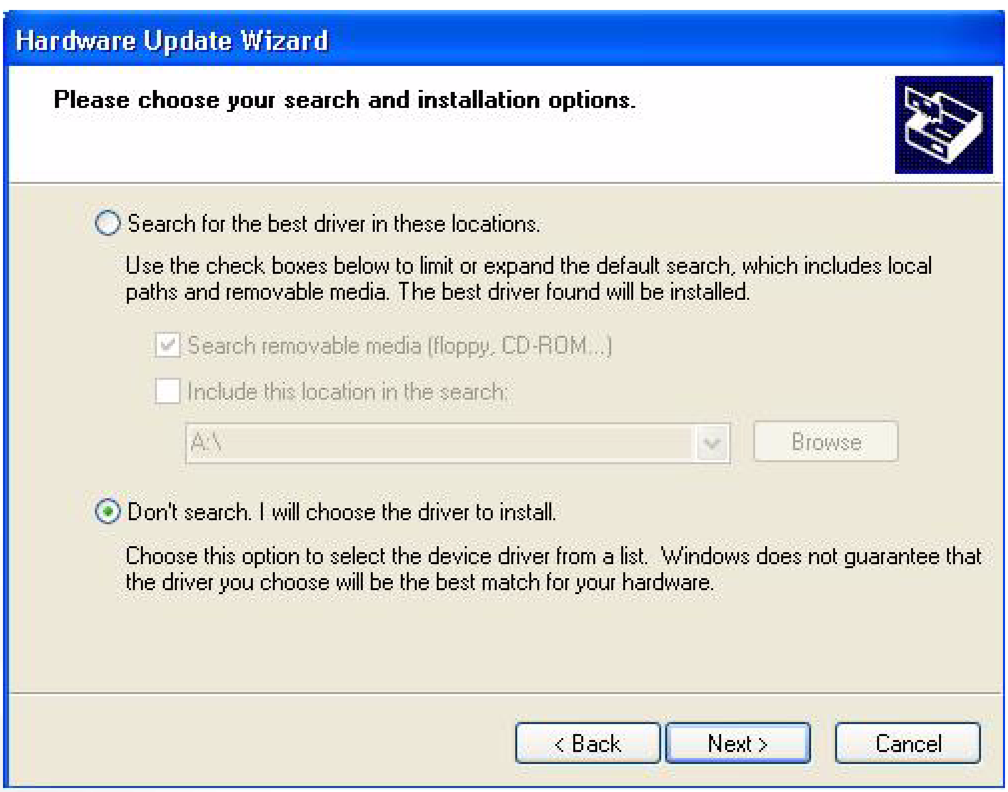
2. Select "**Driver**" tab and then click "**Update Driver…**"



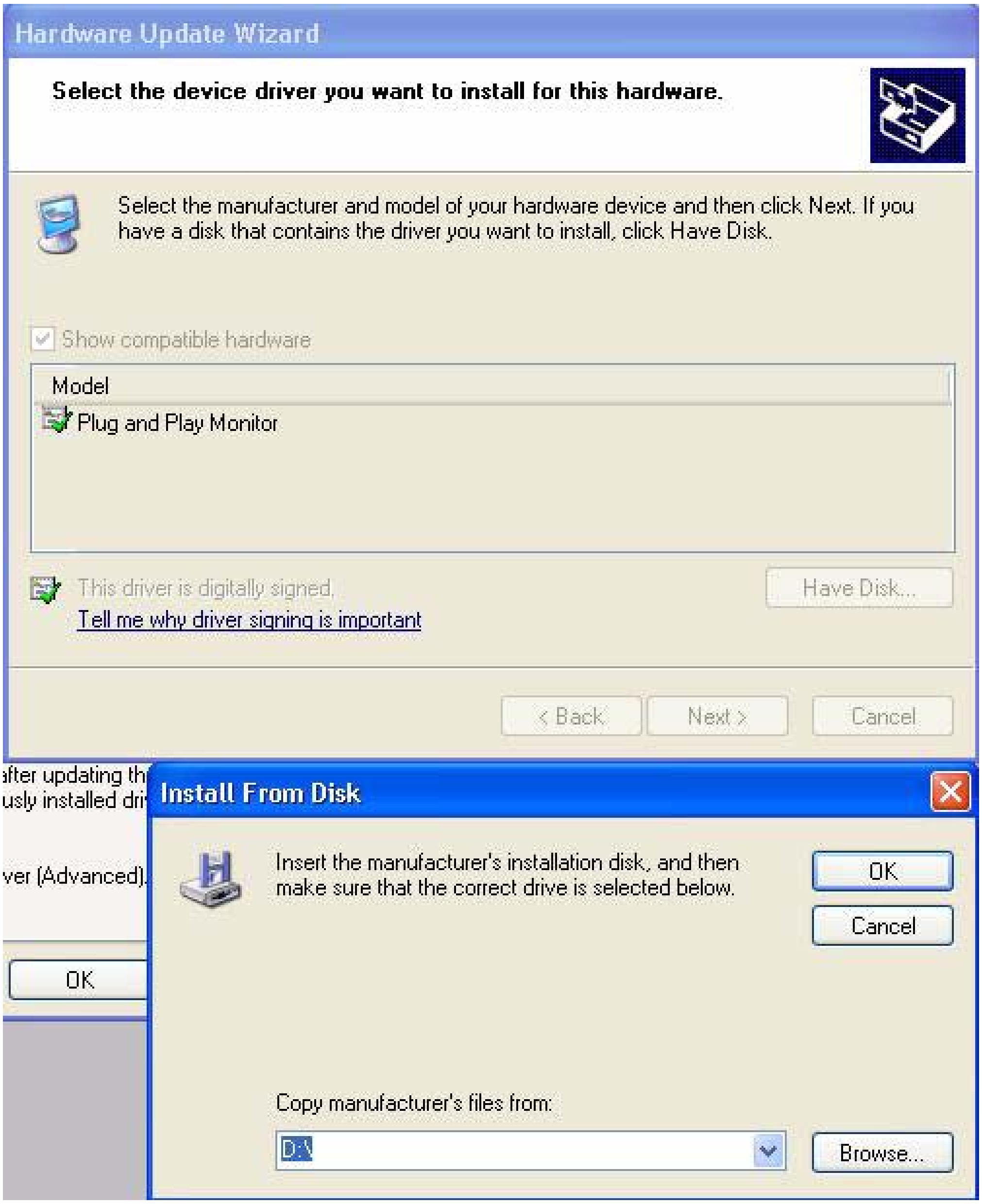
3. The “**Hardware Update Wizard**” will pop up. Then click “**Next**”.



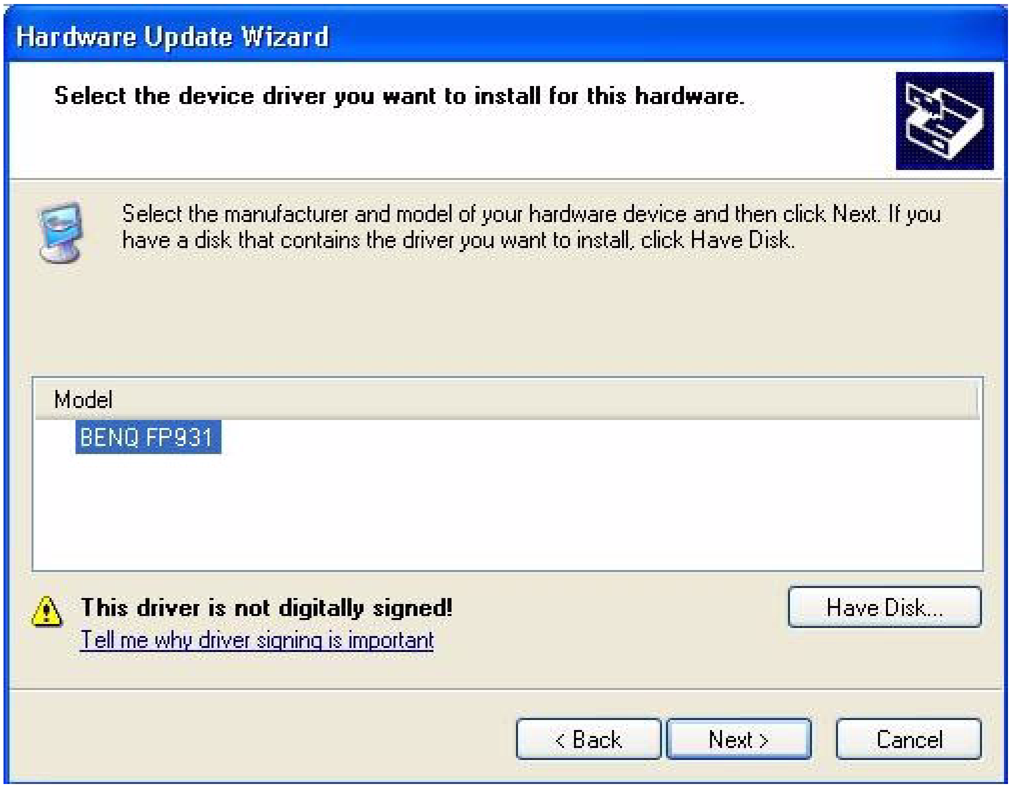
4. Select “**Don’t search. I will choose the driver to install**” and then click “**Next**”.



5. In the next window, click “**Have Disk…**”, an “**Install From Disk**” window will pop up. Click “**Browse**”. The “**Locate File**” window will pop up.



6. Select your driver and then click "**Next**".



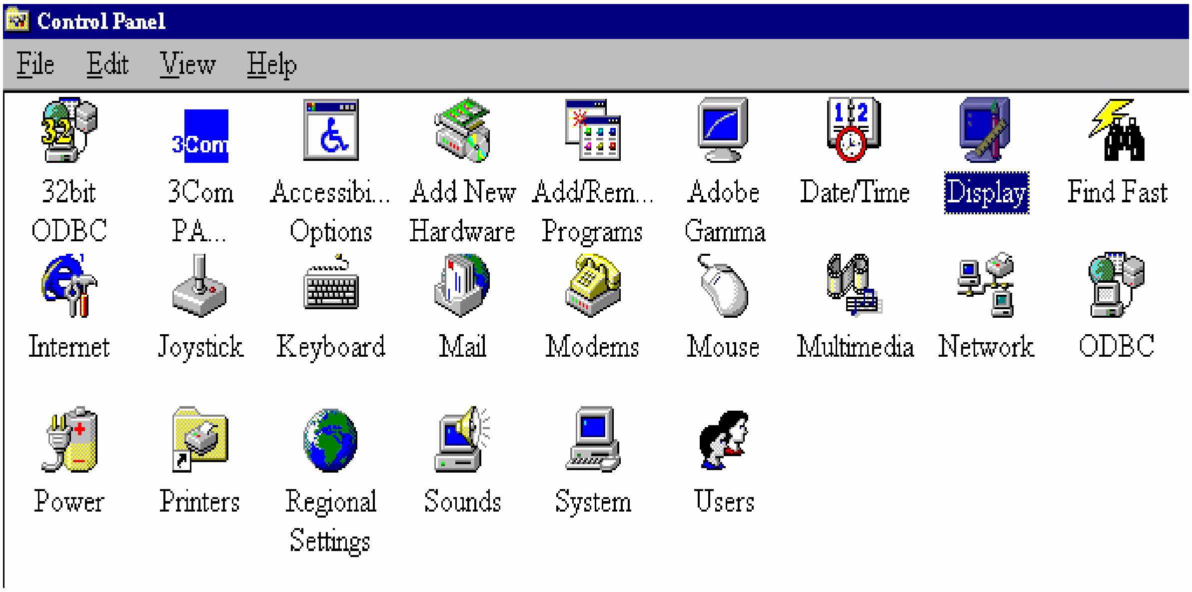
7. The new drivers are now installed to your computer. Click "**Finish**" to exit installation.



5 Choosing the best picture resolution

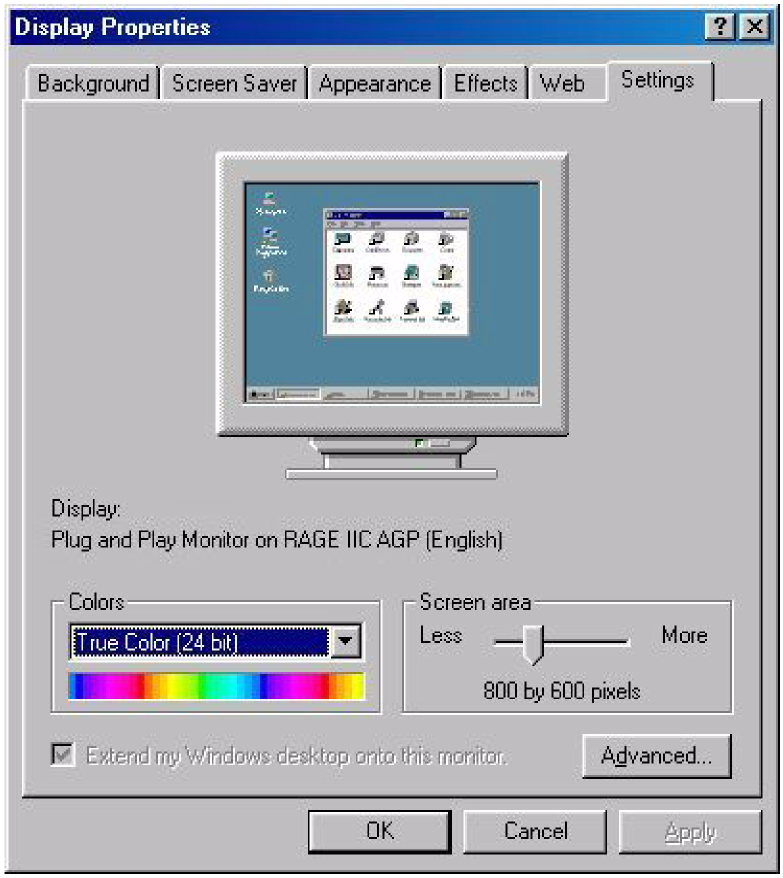
Due to the nature of LCD display technology, the picture resolution is always fixed. The best picture possible for your FP931 is achieved with a resolution of 1280x1024. This is called "Native Resolution" or maximal resolution - that is, the clearest picture. Lower resolutions are displayed on a full screen through an interpolation circuit. However flaws do occur with the interpolated resolution. So if you want to have all the advantages of LCD technology you must use the native resolution. If you are using Windows 95/98/2000/ME or XP you can change the picture resolution as follows:

1. Double-click the "**Display**" icon in the Control Panel.

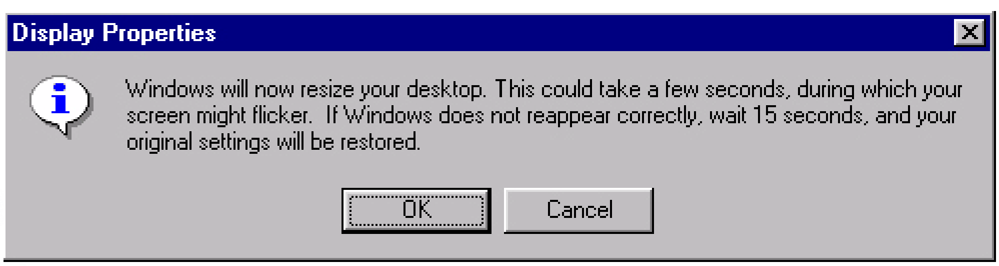


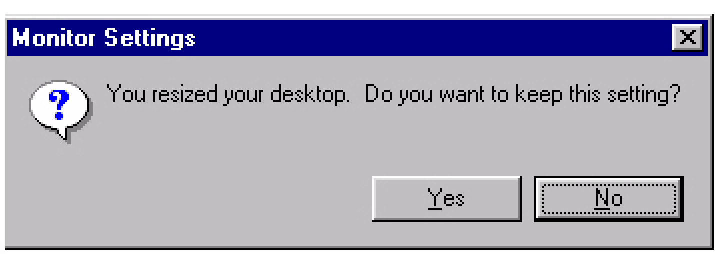
2. From the "**Display Properties**" window, select the "**Settings**" tab. You can alter the resolution by using the slider on the right-hand side.

3. Select a resolution of 1280x1024. Then click "Apply".



4. In the subsequent windows, press "OK" and "Yes"



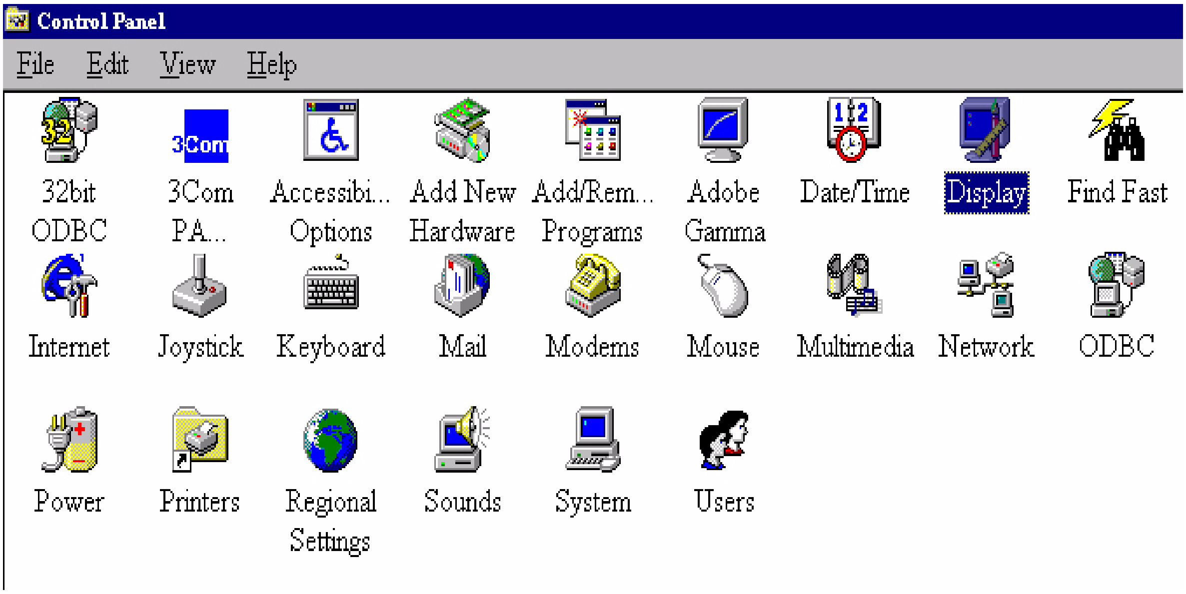


5. You can now close "Display Properties".

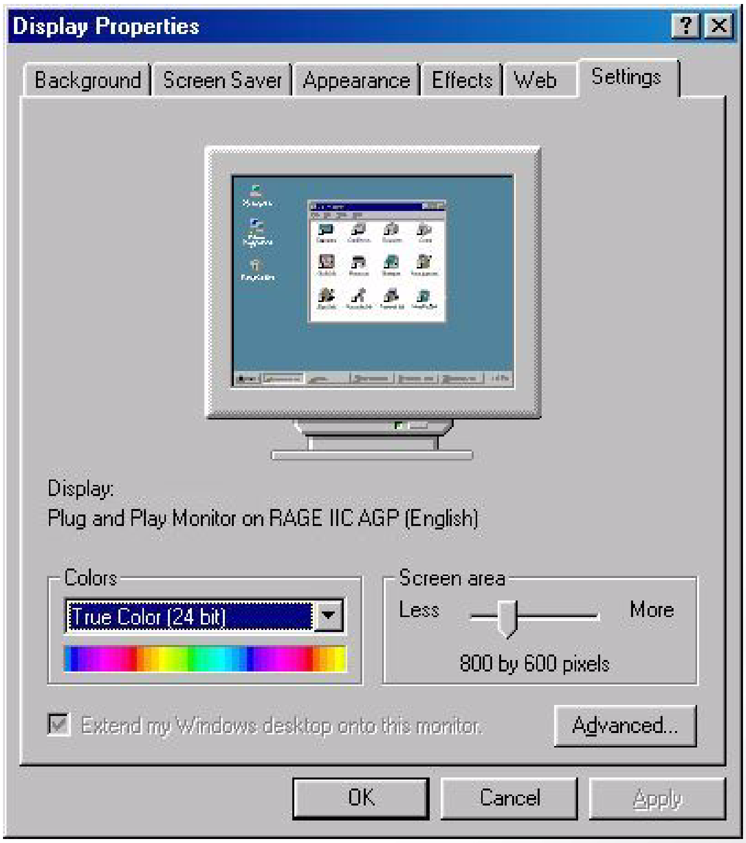
6 How to choose the right Refresh Rate

You don't have to choose the highest possible refresh rate on an LCD display, because it is not technically possible for an LCD display to flicker. The best results are obtained by using the factory modes already set in your computer. There is a table with the factory modes in this user's guide. Youc an choose 60, 70 and 75 Hertz, (but not 72Hz) for the native resolution of 1280x1024. In Windows 95/98/2000/ME/XP you can change the refresh rate as follows:

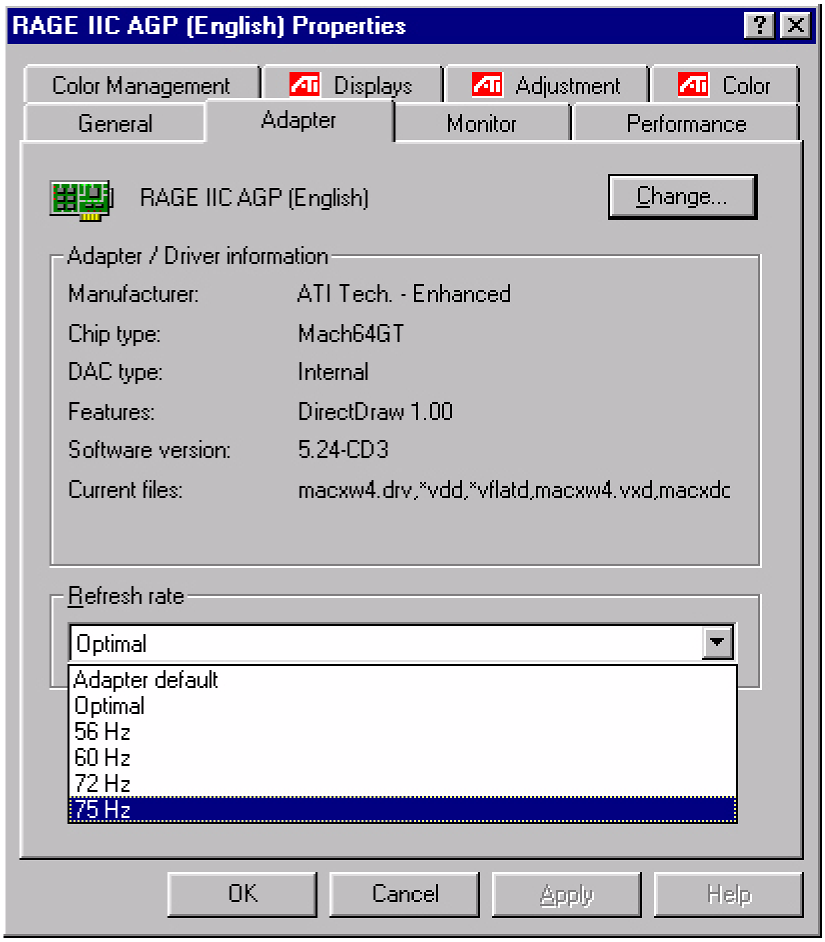
1. Double click the "**Display**" icon in the Control Panel.



2. From the "**Display Properties**" window, select the "**Settings**" tab. Click the "**Advanced...**" button in the bottom right corner.

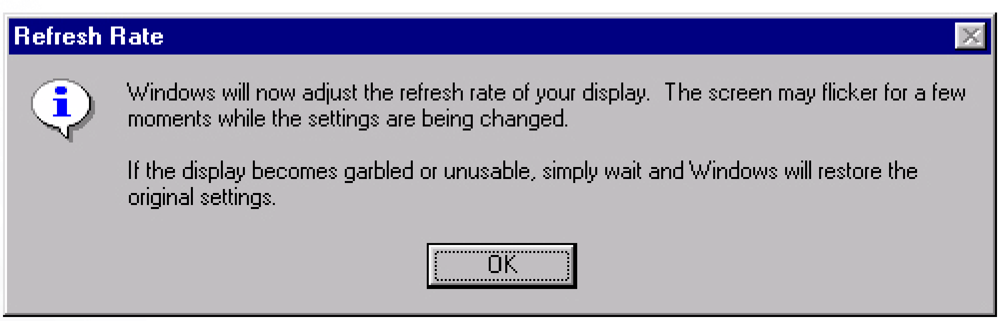


3. Select the "**Adapter**" tab. The refresh rate selection field is located in the center at the bottom of the window.



4. Choose a refresh rate from the table with the factory modes, which can be found in the user's guide, and select this in the settings field.

5. In the subsequent windows press "**Change**", "**OK**" and "**Yes**".



6. You can now close "**Display Properties**".

7 How to set the Picture Optimization

The easiest way to obtain an optimal display is to use the *ikey* function. Press the "*ikey*" on the control panel and the monitor will adjust automatically.

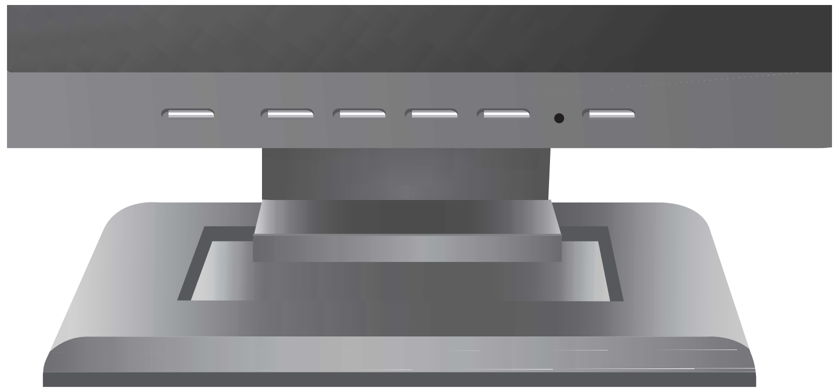
If you are still not satisfied with the result, you can still adjust the image manually.

1. Run the test program auto.exe from CD-ROM; this is the best way to observe possible changes. You can also use any other image, such as the desktop of your operating system. However, we recommend that you use auto.exe. As you run auto.exe, a test pattern emerges.
2. Press "Enter" on control panel to access OSD.
3. If there is vertical noise observed, press ◀ or ▶ key to select "**Geometry**" and press "Enter" key. Then press ◀ or ▶ key to select "**Pixel Clock**" and also press "Enter" key again. Now, press ◀ or ▶ key to adjust the monitor untill the noise disappears.
4. If there is horizontal noise observed, press ◀ or ▶ key to select "**Geometry**" and press "Enter" key. Then press ◀ or ▶ key to select "**Phase**" and also press "Enter" key again. Now, press ◀ or ▶ to adjust the monitor untill the noise disappears.

   To make sure the "*iKey*" function performs well, you have to use one of the supported modes. If the "*iKey*" does not work properly and the "**NON PRESET MODE**" message is on the OSD, it means you are not using one of the supported modes. Please set your computer to use one of the supported modes. You will find a list of supported modes in this manual.

❽ How to adjust your Monitor

A Look at the Control Panel



There are 6 keys for user's control including "*iKey*", "Exit", "Enter", "<" and ">" key and a power swith. The following descriptions are the introduction of these keys & switch.

1. "Power": Turn the power on or off.
2. "*iKey*" : Adjust vertical position, phase, horizontal position and pixel clock automatically.
3. "Exit" key: Back to previous menu or exit OSD.
4. "Enter" key: Activate OSD, enter sub menu, select items, confirm selection and hot key for OSD Lock.
5. ◀ (Left) key: For Left/Decrease adjustment. Left key is the hot key for Brightness and Contrast.
6. ▶ (Right) key: For Right/Increase adjustment. Right key is the hot key for Brightness Level.

Hot Key Mode

Brightness and Contrast hot key

Press ▶ to enter Brightness menu, press ◀ or ▶ key to adjust the degree of brightness and press "Exit" to exit OSD.



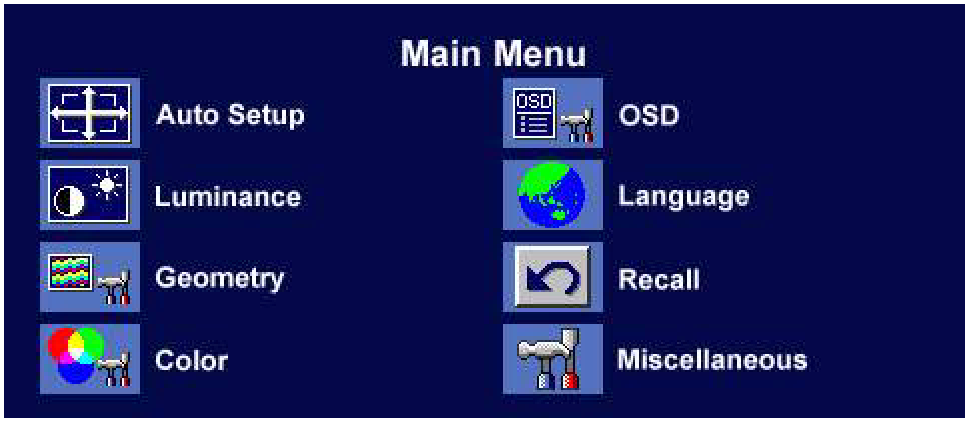
Press ◀ to enter Contrast menu, press ◀ or ▶ key to adjust the degree of Contrast and press "Exit" to exit OSD.



Main Menu Mode

Control Functions Available in Main Menu

Main Menu



Luminance sub menu



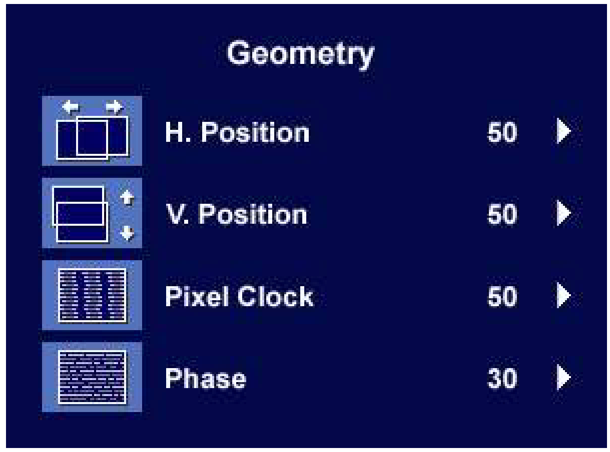
Press ◀ or ▶ key to adjust the degree of Brightness, press “Exit” to return to the previous menu.



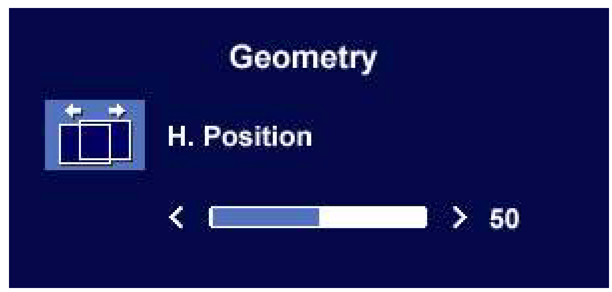
Press ◀ or ▶ key to adjust the degree of Contrast, press “Exit” to return to the previous menu.



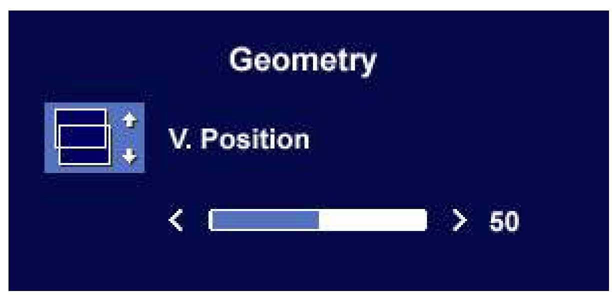
Geometry sub menu



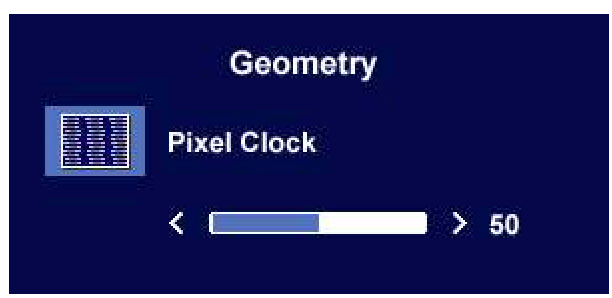
Press ◀ or ▶ key to adjust the Horizontal Position, press “Exit” to return to previous menu.



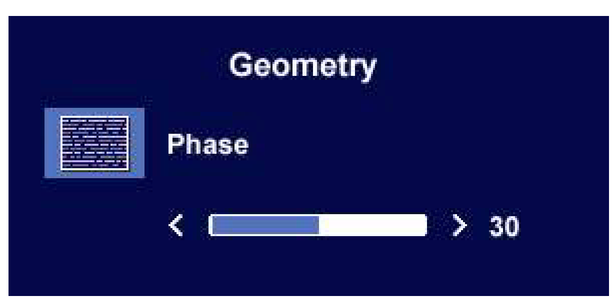
Press ◀ or ▶ key to adjust the Vertical Position, press “Exit” key to return to previous menu.



Press ◀ or ▶ key to adjust the value of the Pixel Clock, press “Exit” to return to previous menu.



Press ◀ or ▶ key to adjust the degree of Phase, press “Exit” to return to previous menu.



Color sub menu

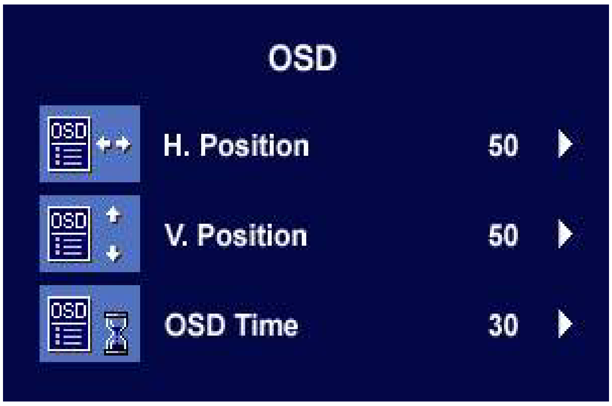


User Preset:

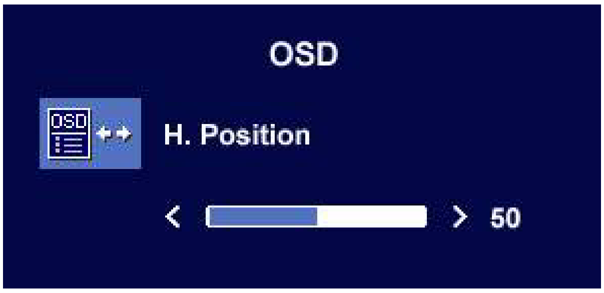
User may set the color balance of Red, Green and Blue.



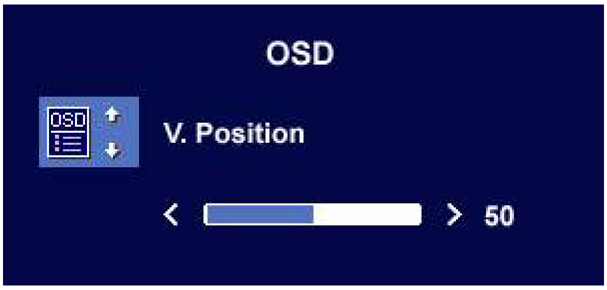
OSD sub menu



Press ◀ or ▶ key to adjust the Horizontal Position of the OSD, press “Exit” to return to previous menu.



Press ◀ or ▶ key to adjust the Vertical Position of the OSD, press “Exit” to return to previous menu.



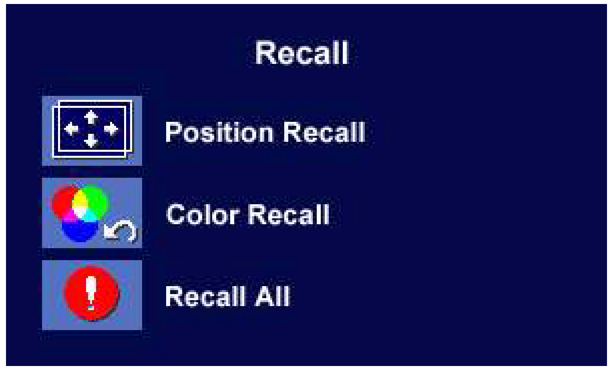
Press ◀ or ▶ key to adjust the display time of the OSD, press “Exit” to return to previous menu.



Languages Sub menu



Recall sub menu



Press ◀ or ▶ key to confirm Position Recall, press “Enter” to recall position settings, or press “Exit” to return to previous menu.



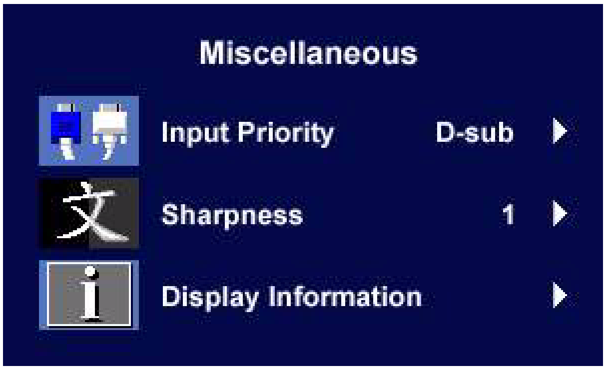
Press ◀ or ▶ key to confirm Color Recall, press “Enter” to recall color settings, or press “Exit” to return to previous menu.



Press ◀ or ▶ key to confirm Recall All, press “Enter” key to recall position and color settings, or press “Exit” key to return to previous menu.

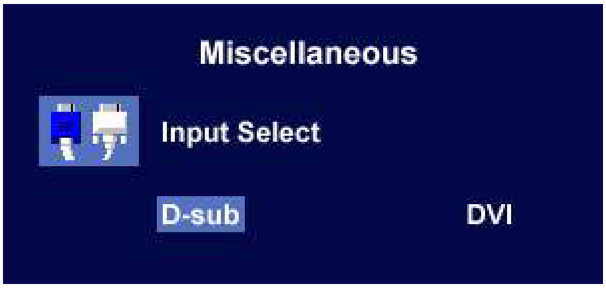


Miscellaneous sub menu



Input Select:

Selects either D-sub (analog) or DVI (digital) inputs.



Sharpness:

Press ◀ or ▶ key to adjust the degree of Sharpness.



Display Information.



9 Troubleshooting

Frequently Asked Questions (FAQ)

⑦ The image is blurred:

☞ **Read the Installation/Application section, and then select the correct resolution, refresh rate and make adjustments based on these instructions.**

☞ **How do you use a VGA extension cable?**

Remove the extension cable for the test. Is the image now in focus? If not, optimize the image by working through the instructions in the Installation/Adjustment section It is normal for blurring to occur due to conduction losses in extension cables. You can minimize these losses by using an extension cable with better conduction quality or with a built-in booster.

☞ **Does the blurring only occur at resolutions lower than the native (maximum) resolution?**

Read the Installation/Adjustment section. Select the native resolution.

⑦ Pixel errors can be seen:

☞ **One of several pixels is permanently black, one or more pixels are permanently white, one or more pixels are permanently red, green, blue or another color.**

Read the Pixel error rates section.

⑦ The image has a faulty coloration:

☞ **It has a yellow, blue or pink appearance.**

On the monitor, press “Enter” key and press ◀ or ▶ key to move to the “Recall” icon and press “Enter” key to enter “Recall” sub menu. Press ◀ or ▶ key to select “Color Recall” and select “Yes” in “Color Recall” sub menu, then press “Enter” key to recall to factory settings. If the image is still not correct and the OSD also has faulty coloration, this means one of the three primary colors is missing in the signal input. Now check the signal cable connectors. If any pin is bent or broken off, please contact your dealer to get necessary support.

⑦ No image can be seen:

☞ **Is the prompt on the display illuminated in green?**

If the LED is illuminated in green and there is a message “Out of Range” on the screen, this means you are using a display mode that this monitor does not support, please change the setting to one of the supported mode. Please read “Supported operating modes” section.

☞ **Is the prompt on the display illuminated in orange?**

If the LED is illuminated in orange, the power management mode is active. Press any button on the computer keyboard or move the mouse. If that does not help, check the signal cable connectors. If any pin is bent or broken off, please contact your dealer to get necessary support.

☞ **Is the prompt on the display not illuminated at all?**

Check the power supply mains socket, the external power supply and the mains switch.

? **The image is distorted, flashes or flickers:**

☞ **Read the Installation//section and then select the correct resolution, refresh rate and make adjustments based on these instructions.**

? **The image is displaced in one direction:**

☞ **Read the Installation//section and then select the correct resolution, refresh rate and make adjustments based on these instructions.**

Need More Help?

If your problems remain after checking this manual, please contact your place of purchase or e-mail us at: Support@BenQ.com

⑩ Supported operating modes

Incoming display mode (Input timing)				
Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Comment
640x350	31.47(P)	70.08(N)	25.17	DOS
720x400	31.47(N)	70.08(P)	28.32	DOS
640x480	31.47(N)	60.00(N)	25.18	DOS
640x480	37.86(N)	72.80(N)	31.50	VESA
640x480	37.50(N)	75.00(N)	31.50	VESA
800x600	35.16(P)	56.25(P)	36.00	VESA
800x600	37.88(P)	60.32(P)	40.00	VESA
800x600	48.08(P)	72.19(P)	50.00	VESA
800x600	46.87(P)	75.00(P)	49.50	VESA
1024x768	48.36(N)	60.00(N)	65.00	VESA
1024x768	56.48(N)	70.10(N)	75.00	VESA
1024x768	60.02(P)	75.00(P)	78.75	VESA
1152x864	67.50(P)	75.00(P)	108.00	VESA
1152x870	68.68(N)	75.06(N)	100.00	Macin-tosh
1152x900	61.80(N)	66.00(N)	94.50	SUN 66
1152x900	71.81(N)	76.14(N)	108.00	SUN
1280x1024	64.00(P)	60.00(P)	108.00	VESA
1280x1024	75.83(N)	71.53(N)	128.00	IBMI
1280x1024	80.00(P)	75.00(P)	135.00	VESA
1280x1024	81.18(N)	76.16(N)	135.09	SPARC2

- Modes not listed in the table may not be supported. For an optimal picture, we recommended you choose a mode listed in the table above.
- There are 22 available modes that are compatible with Windows.
- Image disruption may occur as a result of signal frequency differences from VGA cards which do not correspond with the usual standard. This is not, however, an error. You may improve this situation by altering an automatic setting or by manually changing the phase setting and the pixel frequency from the “Geometry” menu.
- If you switch off the monitor, interference lines can occur on your screen. But do not be concerned about this, as it is normal.
- To extend the service life of the product, we recommend that you use your computer's power management function.

⑪ Specifications

Model	FP931
931 Display type	19.0" , active, TFT
Viewable diagonal	48.26 cm
Native (maximum) resolution	1,280X1,024
Colors	16.2 million
Contrast / Brightness	450:1 / 250 cd/m^2
Response time	16 ms
Viewing angle	130/130
Line frequency	57.6 - 82 kHz Multi- frequency monitor
Image frequency	60 - 77 Hz modes within these parameters
Image checks	Digital, *Screen* OSD Technology, *iKey* (automatic image setting)
Controls	5 buttons and *iKey.*
iScreen functions	Contrast, brightness, vert. & hor. image position, phase, pixel clock, color balance, color palette, choice of language (8 language OSD), OSD position, status indicator
Power Management	VESA DPMS, EPA
Max. power consumption	40 Watt Max
Power saving mode	≤ 1 Watt This product comply with ENERGY STAR® Program Requirements Computer Monitors. Version 4.0
Input signal	RGB analog 0.7 Vpp/75 Ohm positive Digital: DVI-D (Optional)
Synchronisation	TTL separate signal connection 15-pin mini D-sub cable
Temperature (operating)	5 °C - 40 °C
Air humidity (operating)	20% - 80%
Certifications	TCO 03 (Optional), TCO 99, TÜV/Ergonomics, TÜV/ GS, FCC Class B, ISO 13406-2, VCCI, UL, CB Report, CE, C-Tick, BSMI, Fimko, GOST
Operating voltage	Automatic switched mode power supply, 90-264 V, 47-63Hz
Dimensions (W x H x D)	415.2 x 426.3 x 180 mm
Weight	7.4 kg